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THE
RURAL ECONOMY
OF
YORKSHIRE.

COMPRIZING THE
Management of Landed Estates,
AND THE
PRESENT PRACTICE of HUSBANDRY
IN THE
AGRICULTURAL DISTRICTS
OF THAT COUNTY.

By Mr. MARSHALL.

VOL. II.

L O N D O N.

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SECOND VOLUME.

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THE
RURAL ECONOMY
OF
YORKSHIRE.

I.

W H E A T.

IN NORFOLK, a CORN country, whose husbandry may be taken as a standard for other LIGHT-LAND DISTRICTS, I studied the various processes of each ARABLE CROP with attention; and have endeavoured to describe them with minuteness. But to pursue a similar conduct in a country where GRASSLAND prevails; where corn is of course only a *secondary* object; and where, through the diversity of soils, and the present state of

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inclosure,

inclosure, no regular management of arable crops sufficiently excellent to be held out as a pattern is established,—would be an impropriety. Nevertheless, in a country where improvement stands on tiptoe, eager to discover and bring into practice every thing which wears the aspect of superior utility, it would be still more improper to pass over the INDIVIDUALS of the ARABLE CROPS without notice.

Their GENERAL MANAGEMENT has been already described under the foregoing general heads. What remains to be done with respect to EACH CROP is to register such PARTICULARS as I judge may be of service in the advancement of the plan under execution.

The particulars which strike me as being noticeable, under the present head, are,

1. The species of wheat prevalent here;
2. The raising of new varieties;
3. Preparing the seed to prevent smut;
4. An opinion respecting mildew.

I. THE SPECIES of wheat cultivated at present in the District are,

1. TRITICUM *Hybernum*; WINTER WHEAT: of which there are the following VARIETIES:

1. " Zealand

1. "*Zealand Wheat*:" chaff white, without awns*; ears somewhat large; grain white and full-bodied; straw long and reedy. This sort is well adapted to weak and to middling soiled land. In a rich soil, especially in a moist season, it runs too much to straw.

2. "*Downy Kent*:" chaff white, downy, and awnless; ears middle-sized; grain white and small; straw short. This kind is best adapted to good land; in which it generally yields well, notwithstanding the smallness of the grains.

3. *Common White Wheat*. The two preceding sorts seem to have almost banished the "old white wheat" of the District—the *white Lammas* of other districts.

4. *Hertfordshire Brown*. Chaff *white*,—grain *red*,—straw of a middle growth: resembling the *Kentish white Cobb* of Norfolk.

5. "*Yellow Kent*." Chaff somewhat *red*; grain *white*! ears large; straw stout.

6. *Common Red Wheat*. This, like the old white, appears to be now nearly extinct.

* All the varieties of *Triticum Hybernum* which I have yet observed have a few short awns towards the top of the ear.

2. TRITICUM *Æstivum*; SUMMER WHEAT;
—generally known by the name of SPRING
WHEAT.

In the Whitby quarter of the *Morelands* this species of wheat has been cultivated many years. It was introduced into the *Vale* a few years ago; but it does not seem to gain an establishment here. It has, however, been sufficiently tried to ascertain *the proper month of sowing*: namely, *April*.

II. RAISING VARIETIES. It is probable that time has the same effect upon the varieties of wheat and other grains as it has on those of cultivated fruits, potatoes, and other vegetable productions.

In every country I find new varieties of corn gaining footing, and old ones giving place to them. Fashion may influence a few individuals to *introduce* a new variety; but it is not likely that fashion alone should induce a body of professional husbandmen to *discard* an old one.

In GARDENING, varieties are endless; and fresh ones are annually making: not perhaps so much by accident as by industry. Thus to produce an early PEA, the gardener marks
the

the plants which open first into blossom, among the most early kind he has in cultivation. Next year he sows the produce of these plants, and goes over the coming crop in the manner he had done the preceding year, marking the earliest of this earlier kind. In a similar manner new varieties of APPLES are raised, by choosing the broadest-leaved plants among a bed of seedlings rising promiscuously from pippins,

HUSBANDMEN, it is probable, have heretofore been equally industrious in producing fresh varieties of CORN; or whence the endless variety of WINTER WHEATS? If they be naturally of one and the same species, as Linneus has deemed them, they must have been produced by climature, soil, or industry; for although nature sometimes sports with individuals, the industry of man is requisite to raise, establish, and continue a PERMANENT VARIETY.

Of late, the raising of varieties has perhaps been little attended to. Transferring those already established from one part of the kingdom, or from one part of the world, to another, has alone perhaps produced the re-

cent changes in the several Districts. The only instance in which I have had an opportunity of tracing the *variety* down to the *parent individual*, has occurred to me in this District.

A man whose observation is ever on the wing in the field of husbandry, having perceived in a piece of wheat a plant of uncommon strength and luxuriance, diffusing its branches on every side, and setting its closely surrounding neighbours at defiance; marked it, and at harvest removed it separately.

The produce was fifteen ears, yielding six hundred and four grains of a strong-bodied liver-coloured wheat, different in general appearance from every other variety I have seen. The chaff smooth, awnless, and the colour of the grain. The straw stout and reedy.

These six hundred grains were planted singly nine inches asunder, filling about forty square yards of ground; not in a garden, or in a separate piece of ground, but upon a clover stubble; the remainder of which was at the same time sown with other wheat in the common way: by which means *extraordinary*

ordinary trouble and destruction by birds were equally avoided.

The produce of these forty yards was two and a half gallons, weighing twenty pounds and a half, of prime grain fit for seed, besides some pounds of seconds. One grain produced thirty-five ears, yielding twelve hundred and thirty-five grains.

The second year's produce being sufficient to plant an acre of ground, the variety was of course sufficiently established.

This, the fifth year, I have seen it grow in quantity; but the season being moist, and the soil good, it was most of it lodged. The crop upon the ground is abundant: seventy full flocks an acre. But the produce of Zealand wheat in the same piece is equal to it; and, on examination, I think the grain of this is better, its skin is somewhat thinner. Nevertheless, the variety under notice may rank with the first of the present day. For an inferior soil it may perhaps be found superiorly eligible*.

B 4

Its

* It is observable, that the quality of this variety improves. Its colour and skin this year, notwithstanding the unfavourableness of the season, are finer than they were the last and the preceding years.

Its intrinsic value, however, would not have been a sufficient inducement for describing the circumstances of its rise, had not these circumstances pointed out at the same time the *practicability*, as well as an *easy and speedy method of raising new varieties*, and of *improving* those which are already known.

What deters *Farmers* from improvements of this nature, is principally the mischievousness of *BIRDS*; from which at harvest it is scarcely possible to preserve a small patch of corn, especially in a *garden* or other ground situated near a *habitation*. But by carrying on the improvement in a *field of corn of the same nature*, that inconveniency is got rid of.

In this situation, however, the *botanist* will be apprehensive of danger from the floral farina of the surrounding crop. But, from what observation I have made, I am of opinion his fears will prove groundless. No evil effect of this nature occurred in the instance above recited, although the cultivation has been carried on among *white* wheat. But this need not be brought as an evidence: it is not uncommon here to sow a mixture of *red* and *white* wheats together, and this, it is

con-

confidently asserted, without impairing even the *colour* of either of them.

The same mode of culture is applicable to the IMPROVEMENT OF VARIETIES; which perhaps would be more profitable to the husbandman than raising new ones, and much more expeditious.

Formerly, it was the practice in the improvement of cattle to *cross* with other breeds; but modern breeders, who have brought the art to a high degree of perfection, pursue a different method: they pick out the fairest of the particular breed or variety they want to improve, and prosecute the improvement with these *selected individuals*.

In every field of corn, let the variety be ever so pure and ever so well adapted to the soil and situation, the same inequality in the beauty and goodness of individuals is observable, as in a herd of cattle; and it is the business of the corn-farmer to avail himself of so suitable an opportunity of improvement, by *selecting such individual plants as excel in vigour and productiveness*, under a moral certainty that such individuals are peculiarly adapted to *his* soil and situation.

III. PRE-

III. PREPARING SEED-WHEAT. In the Rural Economy of NORFOLK I have mentioned an improvement in the use of salt and lime as preventives against smut. Here a singular remedy is made use of for that purpose; singular I mean as to this District, in which alone I have found ARSENIC used as a preventive of that troublesome disease.

Formerly, brine and lime were the usual preparation here, as they still are in almost every District of the Island. How long arsenic has been in use here, or how the use of it was introduced, I have not learnt with sufficient accuracy. One person (whose accuracy might be safely relied on, were not his evidence corroborated by my own occasional observation) has used it more than twenty years, invariably, and with uniform success. He cannot say that during that time he has not had a smutty ear of wheat upon his farm; but he asserts with confidence, that since he prepared seed-wheat with arsenic-water, he has not experienced a sensible injury from smut. The same or a similar strength of evidence might probably be obtained from an hundred individuals in this neighbourhood.

Its EFFICACY is not, I believe, doubted by any one who has given it a fair trial; but there are some who, through apprehensions of *danger* from the carelessness of servants, or from their own absentness, or under an idea that an arsenical preparation is hurtful to the seedsman, are scrupulous about using it.

Whether the *last* has or has not any foundation in truth is at present a matter in dispute. The person abovementioned has not, during his twenty years practice, experienced any inconveniency either to himself, his servants, or his live stock; not even to his poultry. Nor have I heard of a single accident having arisen from the use of it in any part of the District.

I do not mean to comment upon this practice: suffice it for me to register such facts as have occurred to me respecting it, and to give the process; leaving the reader to form his own judgment in regard to the propriety of using it.

This preparation is made by pounding the arsenic extremely fine, boiling it in water, diluting the decoction, and drenching the seed effectually in the liquor,

In

In strictness, the arsenic should be levigated sufficiently fine to be taken up and *washed over* with water, reducing the sediment until it be fine enough to be carried over in the same manner.

The usual method of preparing the liquor is to boil one ounce of *white* arsenic finely powdered in a gallon of water from one to two hours, and to add to the decoction as much water or stale urine as will increase the quantity of liquor to two gallons.

In this liquor the seed is, or ought to be, *immersed*, stirring it about in such manner as to *saturate* effectually the *downy end* of each grain.

This done, and the liquor drawn off, the seed is considered as fit for the seed-basket, without being candied with lime, or any other preparation,

If, however, any danger arise to the seedman from sowing seed thus prepared, it probably arises from the superfluous moisture of the seed in this state entering the pores of his hand. Candying the seed with lime would not only absorb the redundant liquor, but would render the seed more pleasant to the hand

hand in sowing, and more distinguishable by the eye when cast upon the ground.

A bushel of wheat has been observed to take up about a gallon of liquor. The price of arsenic is about sixpence a pound; which, on this calculation, will cure four quarters of feed. If no more than three quarters be prepared with it, the cost will be only a farthing a bushel; but to this must be added the labour of pounding and boiling. Nevertheless it is by much the cheapest, and perhaps upon the whole the best, preparation we are at present acquainted with.

When, however, I say the *best preparation*, I mean only to speak the language of professional men, not only in this, but in every other District. My own practice has not furnished me with a sufficient *proof* that *any preparation* is necessary. I therefore suspend my judgment at present, upon this disputable but interesting subject of husbandry. Nevertheless, I wish to have it understood that I am not *at present* an enemy to preparations.

IV. THE MILDEW OF WHEAT. It is a received idea in this District, that MESLIN,—provincially, “*masshelson*,”—(a mixture of
wheat

wheat and rye, formerly a very common crop in this neighbourhood, and still remains to be so in the Morelands) is never affected by the blight or mildew,—provincially and properly, “mildew;”—and that the nature of *rye* is such, that a very small quantity of it sown among *wheat* prevents this frequently destructive effect.

This, *if well founded*, is a most interesting fact; not only in HUSBANDRY, but in the VEGETABLE ECONOMY.

2.

R Y E.

THE ONLY SPECIES of rye cultivated in these kingdoms is the *SECALE cereale* of Linneus; of which two varieties are cultivated in this District.

1. BLACK RYE; formerly the only sort.
2. WHITE RYE, or DANTZICK RYE; introduced into this country about half a century

tury ago, and is now the almost only sort which is cultivated.

Before the use of LIME was prevalent, much rye was grown on the lighter lands upon the margin of the Vale; and in the Morelands scarcely any other crops than rye and oats were attempted. Now, rye is principally confined to the Moreland-dales; and even there the *alteration of soils by lime* has been such, that wheat is become the more prevalent crop.

Nevertheless, on light sandy Moreland soils rye is generally more profitable than wheat; and the bread which is made from a mixture of the two grains, is here esteemed more wholesome to persons in general, than that which is made from wheat alone.

BARLEY.

B A R L E Y

3.

B A R L E Y.

THERE ARE FOUR kinds of barley, all of them distinct SPECIES, cultivated more or less in this District.

Common barley, — *hordeum zeocriton*, — long-eared barley.

Battledoor barley, — *hordeum distichon*, — sprat barley.

Big —————, *hordeum* ———, four-rowed barley, or spring barley.

————— *hordeum hexastichon*, — fix-rowed barley, or winter barley.

The first and the third are the sorts which are now principally cultivated. The first, in the Vale; the third, in the Morelands, or in the Vale, when the season of sowing is driven very late. Formerly, "BATTLEDOR BARLEY" was a common crop; but at present it is almost out of cultivation. The WINTER

BARLEY.

BARLEY is new to the District; and it does not seem to be yet generally understood that it ought to be *sown in autumn*.

In the open field state barley was grown in the "wheat field," alternately with wheat.

One circumstance respecting the ancient husbandry of this crop deserves to be registered; as it serves to shew the alteration which time has the power of making, even in the business of husbandmen.

Less than a century ago, I believe, barley was not saleable until it was MALTED: Public malt-houses, and the business of a maltster, were equally unknown: *every farmer malted his own barley*, or sold it to a neighbour who had a MALT KILN; an out office necessary in those days to every considerable farm.

The fuel used on this occasion was chiefly brakes, cut off the neighbouring commons: a certain day of cutting being fixt, to prevent any man from monopolizing more than his share.

When malted, it was saleable; and the surplus of the consumption of the neighbourhood found a market at Whitby, Scarborough, and other towns of the District.

Now, even *public malt houses* are unknown; the entire business of malting being in the hands of professional **MALTSTERS**; who buy the barley of the farmer, and sell him the malt which he may want for his own private use.

4.

O A T S.

LINNEUS includes the whole tribe of cultivated oats in the species *AVENA sativa*.

The **VARIETIES** formerly cultivated in this District were the "slow oat" and the "hasty oat;" both of them considered as of Scotch extraction.

At present the sorts principally in use are,
1. "POLAND OATS:" a short, plump grain; but the thickness of its skin seems to have brought it into disrepute among attentive farmers. Mostly single; no awn; straw short.

2. FRIEZLAND

2. "FRIEZLAND OATS." These appear to be at present the favourite oat of the country; and with good reason: they afford more straw, and are thinner-skinned than the Poland oat. Mostly double; the larger sometimes awned; the awn placed high.

3. "SIBERIAN OATS,"—more generally known by the name of TARTARIAN OATS. This is evidently a distinct species, unnoticed by Linneus. Each flower frequently contains three perfect florets; never less than two, and a pedestalled rudiment. Sometimes three perfect grains and a rudiment. The panicle, too, varies essentially from all the varieties of *AVENA sativa*. *AVENA arundinacea* would be a proper term for it. The grains of this species are thin and small; the largest awned; the small ones awnless; the straw tall and reedy.

The REED OAT may be said to be here fairly in the hands of husbandmen; a circumstance which I have not observed elsewhere. But it does not seem to be in sufficient estimation to gain an established footing in the District. The grain is light, and the straw too much like reed, to be affected by cattle.

The particulars which are noticeable in the cultivation of oats in the Vale are

1. The soil.
2. The quantity of seed.
3. The produce.
4. A singular mode of thrashing.

I. **SOIL.** The rich lands in the western division of the Vale are peculiarly affected by oats. There have been instances of sowing them six or seven years successively on the same land. This, however, has been where the land has previously lain long in grass. The soil principally a rich sandy loam, a soil singularly productive of oats; but not of *wheat*: which in these soils runs too much to straw.

It is therefore highly judicious in the occupiers of them not to attempt wheat. Oats will generally pay much better on such soils.

II. **QUANTITY OF SEED.** Five or six bushels, and even a quarter of oats, an acre, are here sometimes sown! On some soils it is found, that the more seed, the greater in proportion is the produce. A prudent man, however, ought, in my opinion, to ascertain, by comparative experiments, *the extent of his*

soil before he sow, on a large scale, more than six bushels of oats an acre.

III. PRODUCE. Ten quarters of oats an acre have been grown on a piece of many acres. Seven or eight quarters an acre throughout a large farm has not unfrequently been produced. One Vale farmer, last year, sold and sent to market a thousand quarters of oats.

IV. THRASHING. A most *eccentric* practice has of late years taken place with respect to the thrashing of oats: not in barn, or under cover, as heretofore, and as the operation is still carried on in every other part of the Island; but in the field, or the stack-yard, IN THE OPEN AIR!

This new method of thrashing oats probably took its rise from the ordinary one of thrashing rape in this District (a process which will be explained by and by); the oats, at the outset, being all thrashed on cloths. But, now, I find it is common to thrash them on a piece of plain sward or other level ground without a cloth! it having been found, from experience, that if pigs and poultry be employed to pick up the few which the

Broom leaves, the waste is little or nothing.

What may seem equally strange, this business is frequently done at harvest; the oats being carried immediately from the field, in which they grew, to market!

This, however, is less extraordinary when we are acquainted with the market, which is always open for new oats in this country. The manufacturing parts of West Yorkshire use principally oaten bread; and new oats are coveted for oatmeal. This accounts for their high price at harvest, here, compared with that which they bear in other places; and this was probably the inducement which led to the singular expedient under notice.

The conveniency of thrashing them in the field being by this means discovered, the practice was easily transferred from the field to the *stack-yard*.

In one instance, to which I more particularly attended, the operation was thus conducted. A cloth was spread upon the ground (first made smooth) by the side of the stack of oats (in a stack-yard). A boy threw the sheaves off the stack on to the cloth. One man

man opened and spread the sheaves; turned them when requisite, and threw off the straw when sufficiently thrashed. Four men kept continually thrashing.

In another, the oats were carried from the field to a grass inclosure, and stacked in a place convenient for the expenditure of the straw. In this case the floor was a circle of close-pastured greenward; about ten yards diameter; the opened sheaves being spread in a ring with their heads toward the center; eight or ten thrashers treading this ring with a slow pace. One side sufficiently thrashed, the other was turned uppermost, and the straw at length shook off the circle. Women were employed at the floor, while two men stacked the straw as it was thrown off; and while others were employed on the opposite side of the ring, in winnowing the oats with a machine-fan.

In a third, the oats were carried immediately out of the harvest-field to the thrashing-floor, without a previous stacking. In this case also the floor was a ring of greenward;—beaten firm and smooth with flails before any corn was laid upon it. The waste

is nothing compared with the expense of an cloth.

The straw was in every case stacked loose, to be cut out as hay: the common practice, I understand, when oats are thrashed abroad.

When the straw is thus freed from the corn at harvest, and is stacked in good order, it takes a heat in stack, and is said to make excellent fodder. Cattle will sometimes get forward in flesh upon such straw alone.

But this happens in the rich land quarter mentioned above. And, query, has not a rich soil a similar effect upon the straw, as it has upon the hay, which is grown upon it? The hay of Lincolnshire will fat large bullocks, which that of Norfolk would barely support.

The ADVANTAGES held out in favour of this method of thrashing oats, are those of dispatch and the saving of barn room; or the saving of carriage. A person who had a large quantity of oats upon an off-farm, some miles from his place of residence, without a barn upon it, gave a shilling a quarter for thrashing, at harvest; a busy time. Had not this expedient been practised, a barn must

must have been built, and an impracticable quantity of carriage would have been requisite. The straw was in every case stacked loose.

The chance of bad weather seems to be the only objection to this practice. But there is always plenty of straw to cover up the corn with; and it is found by experience, that a little rain upon the straw does not make it less affected by cattle.

In some cases the practice is, beyond dispute, highly eligible in this country; and might, I have not a doubt, be profitably extended to many other Districts of the island.

PULSE.

5.

P U L S E.

NOTHING particularly noticeable has occurred to me in this District respecting any of the species of cultivated pulse; excepting that it is a pretty common practice to sow beans and peas (grey peas) together, under the name of "BLENDINGS." Sometimes "FITCHES" (probably a gigantic variety of the *ERVUM lens*) are sown among beans. These mixtures are found to increase the crop; and the component species are readily separable with the sieve.

Formerly "LENTILS," the true *ERVUM lens*, were a common crop in this neighbourhood; but at present they are growing, if not already grown, into disuse.

TURNEPS,

6.

TURNEPS.

TWENTY YEARS ago the turnep crop was a stranger in this District. Even yet it is far from being an established crop.

Nevertheless, there are some men whom the spirit of improvement has stimulated to the turnep-culture; and who may rank among the best turnep farmers in the kingdom; those of Norfolk excepted.

It must not however be expected that, after the ample detail I have given of the NORFOLK PRACTICE, much *new* matter can be collected from the practice of this District. I have met with only one particular which merits notice; and which, though a simple and eligible piece of management, I do not recollect to have met with in Norfolk.

In the instance of practice under notice, the *largest* of the turneps are *drawn and carried*

ried off for fattening cattle; and the *small* ones *eaten upon the ground* with sheep; especially with ewes and lambs in the spring.

This practice eases very much the labour of drawing, tailing, &c.—and gives the small turneps room to grow, in the early part of winter; and to shoot freely in the spring.

If the small ones be eaten off *in winter*, the soil is rendered free for the plow, as if the whole had been drawn and carried off. And in this particular only, rests the superiority of the Yorkshire practice: one instance of practice in Norfolk having been noticed, in which the large ones were drawn, and the small ones suffered to stand *until spring*. See NORF. FCON. Vol. I. p. 287.

RAPE.

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are sown upon the ground with sheep; especially
with ewes and lambs in the spring.

This practice takes 7. very much the labour
of drawing, tilling, &c.—and gives the small
turneps room to grow in the early part of
winter, and to shoot freely in the spring.

R A P E.

If the small ones be eaten off in winter,
it **THIS** is the only District in which I have
not with rape (*BRASSICA napus*—Colesseed)
cultivated for its SEED.

It has long been the practice of the Vale;
where large quantities have been annually
cultivated; and where the cultivation of it is,
I believe, equal at least to that of any other
District.

It therefore merits a full and minute de-
scription in this place.

The requisite divisions of the subject are,

1. Succession.
2. Soil and process.
3. Manure and process.
4. Seed-process.
5. Vegetating-process.
6. Harvest-management.
7. Market.

I. SUCCESSION.

I. SUCCESSION. Rape is generally sown on *sward*. In the richer parts of the Vale it is sometimes sown on *fallow*, like turneps; and sometimes it is ventured upon the *stubble* of an arable crop; but, unless the soil be clean and rich, seldom with success. On MAIDEN SWARD, as that of commons, or old grazing grounds, it in general turns out a very profitable crop.

II. SOIL AND PROCESS. Various as are the soils of this District, it is sown on *every species*; and generally with a success proportioned to its *richness*; the *specific quality* of the soil being considered as immaterial; provided it has lain long in SWARD; and provided the sward be reduced, and the soil ameliorated, by PARING AND BURNING. See the Article SOD-BURNING.

III. MANURE AND PROCESS. The ashes of the sward, with generally a sprinkling of *lime*, are the universal and only manure for rape on sward. The ashes, I believe, are principally depended upon for the rape; the lime being rather intended for succeeding crops.

IV. SEED-

IV. SEED-PROCESS. The *time of sowing*, July : early enough to get a strong *leaf*, and late enough to prevent its running up to *stem*, the first autumn. *Quantity of seed*, one gallon an acre ; sown generally on the rough plit of one plowing (see SOD-BURNING) ; the seed being brushed in with a thorn-harrow.

Sometimes the tops of the plits are scratched with a pair of tined harrows before the seed be sown ; and sometimes they are neither harrowed before, nor swept after the sowing !

V. VEGETATING-PROCESS. I have heard of an instance or two of rape being *hoed* with five or six-inch hoes. But that is not the practice of the country. Neither hoeing, nor weeding of any kind, is, I believe, scarcely ever bestowed on the rape crop.

One practice, however, in this stage of the general process of rape deserves notice. The practice here meant is that of "TRANS-PLANTING:" namely, filling the vacant patches (with which rape too frequently abounds) with plants drawn from the parts which are overstocked.

This

This work is generally done by women, who put in the plants with dibbles.

Plants thus removed seldom fail to take root; but they ripen somewhat later than the unmoved plants. Nevertheless, the practice is highly eligible.

The time of transplanting, October.

If the whole, or a principal part of a land, or a large patch,—happen to miss, the plow is sometimes used in transplanting.

In this case the plants are laid, or placed in a leaning posture; by women, in every second furrow, about a foot apart in the furrows. The roots are of course covered with the next spit; and a second spit being added, another row of plants are laid against it. The distance, therefore, is about eighteen or twenty inches by twelve, which, upon good land, is found to be sufficiently near.

The expence of transplanting rape in this manner has been found, on accurate observation, to be about four shillings an acre: namely, eight women, at sixpence a day each.

This

This expedient leads to an operation which would, in my opinion, be a valuable IMPROVEMENT IN THE CULTURE OF RAPE.

The great objection to this crop, and that which deters many judicious men from cultivating it, is the length of time it occupies the soil. Being sown in July or August, the whole tribe of biennial weeds have time to establish themselves before winter; and not being reaped until July or August following, they have time to mature and shed their seed.

The grasses, and strong-rooted weeds of every kind, likewise gain in that time a degree of possession which is difficult to be set aside. The soil, too, gets out of tilth, by lying so long a time without plowing.

ONE PLOWING IN AUTUMN would remove, or greatly alleviate, those evils. The biennials would thereby be extirpated; the grasses and strong-rooted weeds be checked; and the soil be preserved in tillage.

The operation which strikes me as being singularly eligible to be adopted is that of TRANSPLANTING THE WHOLE CROP.

The *method* I should propose is this : draw from the *first land* a sufficiency of plants to plant the *last land* with, and bury their roots in a vacant ground until wanted.

Plow the first land ; burying the weeds and the refuse rape ; and stock it at the same time with plants, drawn from the second land, in the manner above described.

The first land finished, supply the second with plants from the third, and so on till the whole be finished, planting the last land with the plants in reserve.

Besides the **ADVANTAGES** already set forth, the entire piece would by this means be furnished with *prime plants ; equal in strength ; and regular in distance*. Hence the soil would not only be *evenly* occupied ; but the crop would *ripen equally*. The large and uniform distance of the plants, too, would give free admission to the *boe* :—even a narrow *horse-boe* might be used between the rows.

Thus, the foulest crop which farmers have to deal with, might, for a small expence, be rendered a FALLOW CROP of the first estimation.

If sod-burnt land were managed in this manner, the first or seed-plowing ought to be
very

very shallow, across the ridges (if any); and the second, or transplanting plowing, long-way of the lands, across the first plowing; gathering up the ridges dry against winter.

A manured fallow, a rich wheat stubble, or other land sufficiently clean, and in sufficient heart for rape, might be planted with it in a similar manner; raising plants for this purpose in a detached seed-bed.

VI. HARVESTING. Rape is generally *ripe* in July: sooner or later, according to the season. It is considered as fit for cutting when the forwardest of the seed has begun to turn black.

It is universally *cut* with sickles, by women; who, in the ordinary management of the country, lay it in broad thin “reaps,” upon the tops of the stubble; which they generally cut about a foot high, or as high as the lower branches will allow.

In these “reaps,” — shoves or open sheaves, — it lies until the sap be pretty well *dried* out of the greenest, and the ripest is ready to open its pods. If it lie too long, much of the prime seed will be lost in the field; if it be thrashed too green, much will

be left in the pods, and that which is thrashed out be difficult to cure.

The *method of thrashing* (which has been practised in the Vale, perhaps, ever since rape has been cultivated in it) will require more description than I can well persuade myself to bestow upon it. But a PUBLIC "RAPE-THRASHING," conducted as it is in this country, is one of the most striking scenes which occur in the field of Rural Economy. Armies under engagement can scarcely exhibit, to general appearance, greater tumult; nor, on the parade, can they boast of better discipline than may sometimes be observed in a well-conducted rape-thrashing.

If the quantity to be thrashed be large, as twenty or thirty acres; the whole country, for many miles round, are collected. The days of thrashing are considered as *public days*; the lord of the harvest keeping *open field* for all who choose to come into it; ample provision of meat and drink being made for this purpose. A wake or a fair is not a scene of greater jollity.

It is not common, however, for unbidden guests to go to these rural meetings without assisting,

assisting, or at least offering their services to assist in forwarding the business of the day. But to make sure of hands for the more laborious departments, men and women are previously retained with wages over and above the spoils of the feast.

Also previous to the day of thrashing, a "rape cloth,"—"carrying-cloths,"—and other necessities, are to be provided. The cloths are in the hands of a few men, who let them out at so much a day, or so much an acre. A rape cloth of the largest size measures twenty yards square: weighing more than half a ton weight. Hessian is the usual material of which it is made. The hire of such a cloth 15 s. day.

Also before the thrashing, the rape and the stubble are to be removed off the place (or places, if the piece be large) where the thrashing-floor is to be made; the clods being taken off, and the hollows filled up where the cloth is intended to be laid.

The business of the day is thus conducted: The men are divided into carriers, thrashers, and floor-men. Women fill the carrying-cloths; and boys hold them while filling.

These cloths are made of canvas, about six feet square, with poles fixt on two opposite sides (in the manner of a rolling map); openings being left in the middle between the poles and the canvas for two men to run their arms through one on either side; the poles resting by their middles on the men's shoulders; the cloth filled with rape hanging between them. In these cloths the whole of the crop is carried to the thrashing-floor.

The floor-men are divided into layers-on, turners, takers-off, rake-men, riddlers, &c. &c. &c.

The rape to be thrashed is spread thin upon the cloth, in a circle as large as the cloth will contain.

The thrashers move continually in this ring; marching with a flow step in pairs, and in two divisions; the individuals of each division following one another as closely as the nature of their employment will allow them.

The first division are preceded by the layers-on, and followed by the turners; and close upon the rear of the second division follow the takers-off; who with wooden-tined forks

forks shake and throw-off the straw, which is piled in heaps by others with longer implements.

Finally, the rake-men run off the seed, with the heads of their rakes thrust before them; forcing the seed into recesses formed within the ring, or upon the corners of the cloth; where groups of fillers, riddlers, &c. &c. are employed in separating the seed from the principal part of the pods and short straws which beat off in thrashing; while others are equally busy in putting the unwinnowed seed into bags, and carrying it to the "pie" or the waggon.

Toward the close of the day, when the straw has risen into mountainous heaps of almost snowy whiteness; when the field of employment appears on its largest scale; when every department is in full work; and when every individual is animated, and not yet fatigued, with the *entertainment* of the day; the rape-thrashing affords the contemplative mind a pleasing sight; and would afford the pencil a most picturesque subject.

The two divisions of thrashers moving in close phalanx, with flails nimbly brandish-

ing, sometimes in open view, sometimes partially hid among the piles of straw; the clothmen busy and attentive to their various employments; the team drawing off the loaded feed; the carriers from every hand pressing to the thrashing-floor with their seemingly cumbrous loads; and the distant groups of fillers scattered on every side of the foreground; could not fail of affording matter interesting to the painter; especially in a country where a suitable offscapè is seldom wanting.

It were almost pity that a scene at once so picturesque and so truly rustic should be suffered to sink into oblivion, as in all probability it will do in a short course of years. A more economical management is growing into esteem; and it is highly probable that in a few years public rape-thrashing will be discontinued, and of course in a few years more will be forgotten.

The feed is *cured* (that is, takes the heat which is incident to all recent vegetables) in the *chaff* or pods—provincially, “pulls”—either on a barn-floor, a granary, &c. or in “*pies*” built in the field for this purpose with plaited straw.

The

The form, that of a corn-bushel; the diameter, seven or eight feet; the height three or four, filled with rough feed to the brim, and topped up in a conical form with straw or other materials; and the whole secured with a coat of thatch.

This is more generally done, when the markets happen to be low at the time of thrashing; as in these pies the seed may be kept any length of time, provided a sufficient proportion of pulls be retained among it, and provided the size of these receptacles, and consequently the quantity of seed deposited in them, be not too large.

When the seed has done heating, and a market offers, it is sold, carried to the barn, winnowed, and sent to market.

The INCONVENIENCIES of *public rape-thrashing* now require to be mentioned. The bustle and hurry, so dissimilar to the placid routine of husbandry, which are unavoidable on these occasions, are disagreeable to most men; the expence too is sometimes unreasonable; the hazard by weather considerable; and the waste which is generally made by the

over-

over-assiduouſness of unſkilful volunteers, are all of them objections to the practice.

Besides, the *straw* and the *pulls* are in this case little less than wasted, being usually *burnt in the field* for their ashes, which are very few in quantity, and the neat profit arising from them inconsiderable.

The season too is inconvenient: whether in hay-time or harvest, every other employment, however necessary, bows to the rape-thrashing.

It were no wonder that inconveniencies such as these should induce sensible men to devise a more eligible management of this profitable crop. Yet such is the infatuation of an established custom, that there has not, I believe, been an instance of more than one deviation originating in the *Vale* during the centuries of time which rape may have been cultivated in it.

In this instance the rape was HARVESTED AS WHEAT;—reaped, bound, thocked, carried into the barn, *cured in the straw*, and thrashed out when markets and convenience required.

The

The *binding* while yet in a flexible state secured it from that waste by shedding, which is more or less incurred in handling loose reaps in a dry parched state, with the pods ready to open with the slightest touch.

By *setting it up* in stooks the waste committed by birds was much lessened, especially that by wood-pigeons, which settling upon the reaps, beat out tenfold what they eat ; whereas in *shocks*, that which is beaten out runs down into the sheaves and is saved.

In *carrying*, a tall pole was fixed at each corner of the waggon, and a large cloth thrown over them, hanging in a bag to receive the load and to catch the shedded seed.

To prevent *waste in the barn*, the floor of the mow was covered with SOFT HAY, which stops the running of the seed, and off which it may be easily gathered or thrown into the thrashing-floor ; whereas *straw*, being more open, admits the seed to run down among it, and is the cause of considerable waste.

The *expence* under this management is comparatively much less than it is in a public thrashing, more especially if the piece to be harvested be small ; as four or five acres for instance,

instance, which create as great a bustle, and cause almost as great an expence, as twice that quantity.

By an accurate account of the expence of five acres of rape harvested in the usual manner some years ago, the expence appears to be 23s. an acre. The same quantity would now, under the present price of living and the present style of treating upon these occasions, cost from thirty to forty shillings an acre.

By an account equally accurate and particular it appears, that four acres and three quarters, harvested as wheat a very few years ago, cost only 16s. 6d. an acre, tho' thrashed out in harvest.

Reaping—three women, at 8d. each 2 0

Binding—a man 2s, a boy 6d. 2 6

Carrying—three loads, at 18d. 4 6

Thrashing—three days in harvest, at

2s. 6d. 7 6

16 6

But the saving of expence is far from being the greatest saving by this practice. The value of the straw to cattle in winter

is found to be very considerable. The *flower* (that is, the pulls and points of the straw broken off in thrashing) is as acceptable to them as hay; and the *tops* of the *straw* are eaten with avidity, "nearly equal to oat-straw better than wheat-straw."—If it be well got, the *smaller butts* will be eaten up clean. The *luff* makes excellent litter for the farm-yard, and is useful for bottoms of mows, stacks, &c. &c.

Setting fire to the whole in the field is a barbarism which ought to be exploded.

Objectionable, however, as the common mode of harvesting rape in this country undoubtedly is, it has, during time immemorial, been implicitly adhered to (the instance last-mentioned only excepted) until this year (1787), when an IMPROVEMENT has taken place which bids fair to effect a revolution in this department of the husbandry of the Vale.

In

* If we consider the nature of rape, how nearly it is allied to the turnep, and how grateful to cattle while in a green state, it is no wonder that the pods and finer parts of the stems should be acceptable to them in a state of dryness.

In this improved method the rape is all BOUND IN SHEAFLETS, about half the size of wheat-sheaves, with green underling plants of rape, or with long grass or other weeds, with which the stubble of rape too generally abounds.

These sheaflets are laid lightly upon the tops of the stubble to dry, not set up in flocks, as in the instance above-noticed. When they are half-dry, they are, or ought to be, turned; and when fully dry, are STACKED IN THE FIELD.

The sheaves are carried to the stack in sledges, each sledge being furnished with a cloth or large bag, supported by a tall frame, rising about four feet above the body of the sledge, which is light and drawn by one horse. These sledges are loaded, that is to say, the bags are filled, by women, and are taken to the stacks by boys riding upon the horses. A large cloth is spread by the side of the stack for emptying the sledges upon, which is done by overturning them; so that no time is lost either by the sledges or the forkers. A large piece of rape is soon got together in this way.

When

When it is thus *secured in stack*, and has taken its *beat in the straw*, it remains at the option of the owner to thrash it when, where, and in what manner he pleases; that is, as markets, leisure, and other circumstances may direct him. It is observable, that rape-seed *cured in stack* generally turns out a fine sample.

One thing relative to this practice is too remarkable to pass unnoticed. It has been an *established*, and, I understand, the *ordinary practice*, during many years, of a District (the Egton quarter of the Morelands) situated not more than ten miles from that part of the margin of the Vale (Lockton) at which it this year made its entry!

This is a striking instance of the slow progress which practices in husbandry, however excellent, make in travelling from one District to another. How essentially necessary then it is to register them in the Districts of their birth, or in places where they have reached the highest degree of perfection, and to distribute such registers reciprocally among the various Districts of the Island.

VII. MARKETS. There are no oil mills in the Vale. The only market is Malton, from whence

whence rape-seed is sent chiefly, I believe, into the manufacturing part of the county, where oil-mills abound.

The price ten to thirty pounds a last, of ten quarters. The produce of a middling crop, four quarters an acre : five quarters an acre have not unfrequently been produced.

GENERAL OBSERVATIONS. The fluctuation of price which rape-seed is subject to being in some measure perhaps influenced by the success of the Greenland fishery, and the hazard to which the crop is exposed, render it in a degree *uncertain*.

FROSTS, in spring, when rape is in blow, or in the critical state between the blossoming and the formation of the pods, are its greatest enemies. In the spring of 1783 much mischief was done by frosts in May. One person had a piece of twenty acres almost destroyed by it. In the beginning of May this crop promised eight or ten pounds an acre : the soil rich, the crop on the ground good, and the price above par. In the wane of May the twenty acres were offered for twenty pounds ! a loss of one hundred and fifty to two hundred pounds in one article, and perhaps in one night !

But

But every crop is subject to hazard, and to a fluctuation in price; and although rape be liable to be cut off by frost, it rarely is destroyed by that means. Upon the whole, it may be considered as one of the most profitable crops in husbandry. There have been instances, on cold unproductive old pasture lands, in which the produce of the rape crop has been equal to the purchase-value of the land.

This productiveness, or, in other words, the profitableness of the rape-crop, is, however, held out by some men as an objection to its culture, under an idea that it must impoverish the soil.

Does not every *productive* crop *impoverish* the soil? Yet who will argue that good crops are less eligible than bad ones? A good crop enables the farmer to replenish and meliorate his soil with manure and tillage, which ought (generally speaking) always to be in proportion to the recent productiveness of the soil, and to the state of foulness and tilth in which the nature of recent crops have placed it.

If in the culture of rape the soil be permitted to lie undisturbed, either by the plow or the hoe, from seed-time to harvest, suffering weeds of every species to mature and scatter their seeds, and to gain an establishment in the soil; and if, at harvest, the straw be burnt in the field, and the ashes be sent to market, rape is in truth an impoverishing crop.

But were the soil to be plowed in autumn, and to be hoed during the ensuing summer; and were the straw, &c. instead of being burnt, to be consumed in the farm-yard as fodder and litter, I am of opinion that rape, in many cases, would be the most eligible crop the farmer could make choice of*.

P O T A.

* Whether oleaginous or farinaceous crops—whether five quarters of rape or five quarters of wheat an acre—incur the greater impoverishment of soil, is a subject which is yet in the hands of theory. While the food of vegetables, and the vegetable economy at large, are so little understood as they appear to be at present, all argument respecting the comparative impoverishment of the soil by different species of vegetables must be futile.

8.

POTATOES.

THERE is only one SPECIES of potatoe —*SOLANUM tuberosum*:—but the *varieties* of that species are endless. Every county has its favourite kinds; though very different from one another. To enumerate the sorts of any particular District would be filling the page with barbarous terms; without conveying any useful information to the reader.

The VARIETIES of potatoes are transitory in every District; having their entrances and their exits. The rough-skinned “Rusiaty” of this District was long a favourite; but is now, I believe, with many others which have flourished for a time, entirely lost.

There is some reason to believe that the disease, which has of late years been fatal to the potatoe-crop in this and other Districts, under the name of “CURLED TOPS,” has

arisen from too long a continuance of *declining varieties*. Be this as it may, it appears to be an opinion established here, by some years experience, that *fresh varieties*, raised from seed, are not liable to that disease *.

The

* This matter, however, may not yet be sufficiently ascertained, to be registered here as a fact. This disease made its appearance some years ago, with more or less effect, in, I believe, every part of the kingdom. In some parts of it, its continuance was short; its effects have ceased; and are now almost forgotten. In one instance, (which I may have occasion to mention hereafter) its removal was, in all probability, owing to the introduction of new varieties.

The District under survey furnishes a remarkable instance respecting this disease. The Morelands are at present in a manner free from it, while the Vale is still in some degree infected with it. Plants procured from the Morelands remain free from it in the Vale, *the first year*; but, being continued, become liable to the disease.

The disease of curled tops is seldom obvious at the first coming up of the plants; but attacks them as they increase in size; the entire top becoming dwarfish and shrivelled, as if affected by drought, or loaded with insects: they nevertheless live, and increase, though slowly, in size; but the roots are unproductive. Some crops have been almost wholly destroyed by this disease.

Where the attack has been partial, *weeding out the diseased plant*, as they failed, is said to have had a good effect. And, *it is said*, the Morelanders got rid of the disease through this means.

The method of RAISING POTATOES FROM SEED is known to some intelligent husbandmen here. The prevailing method is this :—In autumn, when the apples are beginning to fall spontaneously, they are gathered by hand, and preserved in sand until spring, when they are mashed among the sand, or among fresh mould ; separating the seeds, and mixing them evenly with the mould. As soon as spring-frosts are judged to be over, they are sown in fine garden mould ; and as fast as the plants get into rough leaf, and are strong enough to be handled without injury, they are transplanted from the seed-bed into another bed of fresh, rich mould—in rows ; which are kept clean during the summer. In autumn, bunches of small potatoes are found at the roots of these plants ; varying in size, the first year, from the hazel nut to the crab. These being planted next spring produce potatoes of the middle size ; but they do not arrive at their fullest bulk until the third or the fourth year.

Where the use of the stove or the garden-frame can be had, this process may be shortened. The seeds being sown within either

of these, early in spring, the plants will be fit to be planted out as soon as frosts are gone; by which means the size of the roots will be much increased the first year; and will, in the second, rise nearly to perfection.

Potatoes raised from seed are a miscellany of endless varieties. Sometimes these varieties are planted miscellaneously; sometimes particular varieties are selected.

IN SELECTING VARIETIES from seedling potatoes two things are to be attended to; the INTRINSIC QUALITY of the potatoe, and its PRODUCTIVENESS. If these two desirable properties can be found in one plant, the choice is determined. To this species of attention and industry we are indebted for the many valuable kinds which have been, and now are, distributed throughout the Island.

It is observable, however, that varieties of potatoes, like those of corn, are *partial to particular soils* and situations. Hence the propriety of *husbandmen* raising potatoes from seed; as by this means they obtain, with a degree

degree of moral certainty, *a sort adapted to their own particular soils and situations.*

But it has been already observed, that *varieties degenerate*: the old favourite sorts of this District were driven, until some of the individual plants barely produced their seed again.

Whoever has attended closely to the work of taking-up potatoes, must have observed *the great inequality in the productiveness of individual plants.* The difference in the produce of adjoining roots, where no disparity of soil can influence, will sometimes be three or four-fold. Hence it is evident, that each variety has its SUB-VARIETIES; through whose means, it can hardly be doubted, the *parent variety* may be improved, and its *continuance* be prolonged.

Thus the farmer has another mean in his power of improving the quality and productiveness of his potatoe crop, by IMPROVING VARIETIES, or, in other words, SELECTING SUB-VARIETIES, superiorly adapted to *his* soil and situation.

Every attentive cultivator of this valuable root must be acquainted with the wide difference

rence in *net profit* between a *full* and even a *middling* crop. The rent of land, the seed, and the labour are the same, whether the produce prove great or small. How imprudent, then, to propagate an unproductive kind, when the means of obtaining a productive one are so easy and obvious.

Considerable quantities of potatoes are raised in the District under survey. Almost every man, let his farm be ever so small, cultivates potatoes in the field; not in the ordinary method practised in most Districts of the kingdom; not with the *spade*, but with the *plow*: a practice which has been followed invariably for near a century. I do not mean to speak of it as a practice peculiar to Yorkshire; but, I believe, there is no other county in which it is so prevalent. It therefore merits particular notice here.

It will be necessary to consider separately,

1. The Succession;
2. The Soil and Process;
3. The Manure and Process;
4. The Seed and Process;
5. Vegetating-Process;
6. Harvest-Process;

7. Markets;

7. Markets; or Application of Produce;

8. The Effect of the Potatoe Crop on Soils.

I. Succession. In the common practice of the country, potatoes are cultivated as a *fallow crop for wheat*: the cleanest part of a stubble, or other ground, intended to be summer-fallowed for wheat, being set apart for potatoes. They are seldom planted on *stew*; the common predecessor of the potatoe-crop, in most other places. It is, however, understood, here, that they do best upon "*fresh land*;" that is, land which has not been too long under the plow.

II. SOIL and TILLAGE. Formerly potatoes were confined to *light friable loams*: and the sorts which were cultivated in those days might require this restriction; now they are grown in all soils; different varieties being found partial to different land. It is observed, however, that let the sort be ever so well adapted to the soil, *heavy cold land* seldom gives light well-flavoured potatoes.

The soil is broke-up in winter or spring, and worked-over two or three times with the plow

plow and harrow, as for turneps; getting it as fine as the nature of an early spring-fallow will admit of.

III. MANURE. Dung: generally long strawy dung; which is set in heaps, upon or near the patch to be planted; previous to the feed-plowing. The quantity twenty to thirty cartloads an acre,

IV. SETS and PLANTING. Formerly it was the common practice of the District to plant *whole* potatoes. In taking up potatoes, they were sorted into large, small, and *sets*; which were of the middle size.

At present, that practice is, I believe, entirely laid aside: it being now the custom to *cut* potatoes into more than one set; namely, middle-sized ones into two, large ones into three or four; leaving the cuttings much larger than is done in most other Districts; where eight or ten single-eyed sets are sometimes cut out of one potatoe.

The reason given for the use of LARGE CUTTINGS is, that the young plants may acquire at the outset a strong vigorous habit, and thereby be enabled to throw out and maintain a sufficient number of roots and branches.

And

And the reason I have heard given for using large potatoes in preference to smaller ones is, that "large ones are more likely to produce large ones again." The reasoning, in both cases, appears to be good.

The sets being prepared, the *seed-plowing* is given. In this plowing the land is laid up in ridgelets, similar to those in which gardeners leave the soil, in the operation called trenching, when it is not intended to be immediately cropped. The width of these ridgelets depends on the judgement of the planter; from two and a half to three feet is the usual width.

This operation is performed with a common plow, in the way in which rice-balking (see NORF. ECON.) is usually done; endeavouring to leave the bottoms of the drills *straight, narrow, and clean*. One strong horse, if the soil be light and fine, or two horses, one before the other, if otherwise, is the best team for this work. Horses abreast are apt to foul the drills. The usual depth of the drills is that of the cultivated soil.

In these drills the sets are dropt, by women or boys, at twelve to eighteen inches distance,

distance, according to the judgement of the farmer. If the quantity of land be given, and the number of sets be indefinite, twelve inches may be a sufficient distance; but if, as is generally the case here, the quantity of land be greater in proportion than the number of sets, the farther they are planted asunder, the greater will be the produce in proportion to the plants,

While one party are planting, another are carrying on the dung, in scuttles; either scattering it regularly along the drills, or applying it partially to the plants; covering each set with its due portion of manure. This may appear to be a tedious business; it certainly is a dirty one: but not so tedious as inexperience may suggest. If the loads be broken into three or four heaps, and these be distributed conveniently, five or six women will plant and cover an acre a day in this manner.

The plow closes the business of planting: the ridges are either returned upon the plants and dung, with a common plow, or are split with a double-mould-board plow; in either case,

case, raising the soil into similar ridges over the drills of potatoes.

V. VEGETATING-PROCESS. As soon as the young plants make their appearance, the land is harrowed lengthway of the ridges; to tear up the seed-weeds which grow upon their crowns, and to smother those in the trenches with the mould. In a short time afterward the plow, with the share broad and sharp, is run through each interval, and the rows cleaned with the hoe. In a few weeks more the intervals are again stirred with the plow, and the hand-hoeing repeated. If leisure and the depth of the soil will permit, a second earthing may be given; and, when the plow and the hoe are no longer able to find admission among the tops, hand-weeding is, or ought to be, made use of.

By these means land may be as effectually cleaned from *seed-weeds* as by fallowing; and no man, who has any regard for his own interest, or for his character as a farmer, would ever think of planting potatoes in a bed of *couch and thistles*.

VI. HARVEST-PROCESS. Formerly, potatoes were taken up with the *plow*; endeavouring

vouring to get the share below the potatoes; and to overturn the ridges. But without great care, many potatoes were cut in this operation, and many more unavoidably buried; so that picking again and again was necessary; and, at least, some were left in the land.

At present, the prevailing practice is to take them up with common *dung-forks*: an operation which is at once effectual; and which is by no means so tedious when potatoes are grown in ridges, as when, in the ordinary way, the entire ground is to be dug over. In ridges, the roots are distinct, and are easily laid bare; being open on three sides, with free vent for the mould. The fork being forced down behind them, the whole nidus are at once exposed.

The way of *preserving potatoes*, here, has been either to bury them in deep pits within the ground; or to house them in a barn or other out-building, guarding them on every side with straw. The dangers to be guarded against are *frosts* and *wetness*.

At present (the evil effects of *deep pits* having been discovered) the growing practice seems

seems to be that of laying them in long ridge-like heaps upon the *surface* of arable ground, and covering them up with the surrounding soil, ridged-up in a roof-like form.

A LONG ARCHED VAULT; running endway into the side of a hill (or the side of a pit or other hollow); with a door at the end, level with the ground below; with a road over the top; and with one or more shooting holes, similar to those of coal vaults under the streets of towns, would be an eligible receptacle for potatoes.

VII: MARKETS and APPLICATION. In this part of the District, few potatoes go to *market*, except for sets in the spring.

Nor is the *application* of potatoes to *fattening stock* extensive. In *this* District swine are almost the only species to which they are applied. Some few may be given to cows.

But in the bottom of the VALE OF YORK, great quantities have of late years been applied to the FATTING OF CATTLE. They are, I believe, invariably given to them raw; with alternate meals of hay or barley meal:
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the method of fattening with potatoes being similar to that of fattening with turneps.

The quantity of potatoes grown upon an acre under the management above-described; and their profitableness as an article of food for *cattle*;—I have not been fortunate enough to ascertain with sufficient accuracy.

VIII. THE EFFECT OF POTATOES ON LAND.

Various are the opinions of professional men on this subject. One asserts that they are great *impoverishers of the soil*; that they are *hurtful to the corn*, and *ruinous to the grass*, which succeeds them. Another is clearly of opinion that they are *friendly to corn*, and *not enemies* to grass.

The dispute may, perhaps, be settled satisfactorily in this manner.

The potatoe contains, indisputably, a great quantity of nourishment; and is therefore, perhaps, as indisputably, a great exhauster of the soil.

But the quantity of vegetable nourishment carried off in the potatoe crop is not the only cause of exhaustion: it is notorious to common observation, that this crop leaves the soil in a singularly *friable fertile state*; causing
an

an abundant produce of the crop which succeeds it.

If, taking the advantage of this *prodigality of the soil*, the husbandman keeps cropping it year after year with corn; and, when it will no longer answer his unreasonable expectations, lays it down to grass,—it is no wonder that it should be unproductive: for having lavished all its riches on an *ungrateful* occupier, it is of course reduced to *extreme poverty*.

On the contrary,—if, after a crop of potatoes, well dunged for, only one or two crops of corn be taken, and the land laid down to grass, *while yet in a state of fertility*, the potatoe crop is, to vulgar appearance at least, friendly to the crops which succeed it.

Hence it follows, that land which has been cropped with potatoes should presently afterwards be laid down to grass; or should be *timely replenished* with a quantity of manure *proportioned to the degree of exhaustion it has undergone*.

GENERAL OBSERVATIONS. The value of POTATOES as a *fallow crop*, and as an article of food for cattle compared with TURNEPS and

CABBAGES for the same purposes, may be considered thus :

Potatoes are *more nutritious* ; and, in the opinion of those who have used them, fat cattle much *quicker* than either turneps or cabbages. Potatoes, too, being secured from the severities of winter, are a more *certain* article of fattening than turneps or cabbages ; both of which are liable to perish under an alternacy of frost and thaw ; and the turnep, more particularly, is locked-up, or rendered difficult to be come at, during a continuance of snow or frost. Turneps and cabbages, if they out-weather the severities of winter, occupy the soil in the spring when it is wanted to be prepared for the succeeding crop ; while potatoes, if properly laid up, are a food which may be continued without inconveniency until the cattle be finished, or the grass has acquired the requisite bite for finishing them in the field.

On the other hand, potatoes are a disagreeable crop to cultivate : the planting is a tedious dirty business ; and taking them up, may be called the filthiest work of husbandry ; especially in a wet autumn : and still
more

more especially on a *tender tenacious soil*: while, upon *weak thin land*, the extraordinary quantity of manure which is requisite, renders them impracticable to be cultivated, on a large scale, in ordinary situations.

Upon the whole, it appears to me evident, from the information I am at present in possession of, that the three crops under consideration are each of them superiorly eligible when they are cultivated on the soils to which they are peculiarly and respectively adapted.

A strong tenacious soil is equally unfit for potatoes and turneps, while it is singularly adapted to CABBAGES.

Light shallow unproductive soils are equally unfit for potatoes and cabbages; while with good husbandry TURNEPS may be grown on them with advantage.

Rich sound deep sandy loams are acceptable to the three. But the POTATOE appears to be possessed of some superior properties, which render it at least an object of experiment in CLEAN RICH SOILS.

F L A X.

WITHIN the last twenty years a considerable quantity of flax has been grown in the Vale. The richer parts of it are not ill adapted to this crop; but whether these parts are now gone over, or whether the restrictions of landlords have checked the spirit of cultivation, the culture of it is now evidently on the decline.

The flax-crop, however, being confined to a few individual Districts, it may be proper to give a sketch of its management in this, although it cannot here be called a staple crop.

1. Species.
2. Soil and Succession.
3. Soil-process, and Manure.
4. Seed-process.
5. Vegetating-process.
6. Management of the Crop.
7. Markets.

I. SPECIES.

I. SPECIES. We have only one SPECIES of cultivated flax—*linum usitatissimum*.—The variety cultivated here is the blue, blow, or lead-coloured flax—provincially, “BLEA LINE.”

II. SOIL AND SUCCESSION. Flax requires a *rich dry soil*. A deep fat sandy loam is perhaps the only soil on which it can be cultivated with advantage.

OLD GRASSLAND bearing this description is considered as the properest matrix for line. It is not unfrequently, however, sown on *arable land*; and when the soil is in heart, dry, friable, and free from weeds, with good success.

III. SOIL-PROCESS and MANURE. The *soil-process* generally consists of a *single plowing*, whether of sward or of wheat-stubble.

In the latter case, however, it is mostly bad management. If line be sown on *old corn-land*, it ought in general to be *purged from weeds*, and rendered *perfectly friable* by a well-worked SUMMER FALLOW.

Manure is, I believe, seldom, if ever, set on immediately for the line crop.

IV. SEED-PROCESS. 1. The *time of sowing*, May. 2. The *preparation of the soil*. Much depends on the state of the soil at the time of sowing. It should neither be wet nor dry; and the surface ought to be made as fine as that of a garden-bed. Not a clod the size of an egg should be left unbroken. 3. *Quantity of seed*, two bushels an acre. 4. *Covering the seed*. Sometimes the surface is raked (after being first harrowed) with garden or hay-rakes. If, at the same time, the clods and other obstructions, which could not easily be reduced, were drawn into the interfurrows, the operation would be still more complete. A light hand-roller used between the final harrowing and the raking would assist much in this intention.

V. The VEGETATING-PROCESS depends chiefly on careful *weeding*; an operation which ought to be performed with great scrupulousness. Hence land which is sown with flax should be made as free from weeds as possible; otherwise the expence of weeding, or the injury to the crop, becomes considerable.

If, through a *droughty season*, the plants come up in *two crops*; or if by any other accident,

cident, or by mismanagement, the plants be *too thin* upon the ground, the crop is irreparably injured.

The nature of flax is such, that where it has room at the root, or whenever it gets its head above the plants which surround it, it sends out *side-branches*, and loses in a great measure its *upward tendency*. But its goodness as a crop depends on its running up with *one single stalk* from the root to the seed. *At whatever height it ramifies, there the length of line terminates.* The branches are inevitably worked off in dressing; and the stem itself, unless it bear a due proportion to the bulk of the crop, is likewise worked out among the refuse.

Hence the necessity of having an **EVEN, FULL CROP**. Clods before the sowing, by making the seeds glance in falling, prevent the surface from being evenly seeded; and those which remain when the seeds are in the ground, prevent them from rising regularly. The infant plants, unable to pierce the clod, form themselves in a circle round it, leaving a vacancy in the center favourable to their early ramification.

This being the nature of the plant, a *second coming-up* seldom rises to profit; for being overgrown by the spreading plants of the first crop, it remains weak, short, and underling, and, at pulling-time, is left standing to rot upon the land. *Thus by a droughly seed-time the entire crop is frequently spoiled.*

Not is drought the only enemy of flax; it is liable to injury from *spring frosts*; and is sometimes attacked, even when it is got five or six inches high, by a small white *slug*, stripping off the leaves to the top, which bending down with their weight, they will sometimes draw into the ground; thus in part checking, and in part destroying the plants.

If at the time of weeding a piece of flax do not promise fair for a crop, it is always bad management to bestow further labour and expence upon it. A crop of turneps or rape will generally pay much better than such a crop of flax.

VI. MANAGEMENT OF THE CROP. The *time of harvest* in this climature is generally the latter end of July or the beginning of August, If the crop be intended for line of
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the first quality, the time of pulling is when the seeds are fully *formed*, but not yet ripe. If the *seed* be suffered to *mature*, the quality of the flax is lowered; the filaments are harsh, and the cloth made from them will not take a good colour in whitening.

The "*pulling*" is done by taking the full-sized plants near the top and drawing them up, or rather breaking them off by the roots. One hand is used in pulling, while the other is employed in receiving the handfuls, until as much is collected as both hands can grasp. Some short underling plants are then gathered for a band, and thus a sheaflet is formed.

These sheaflets are collected into heaps, and immediately taken to the *watering-pit*, in which they are completely immersed; first by treading, and afterwards by loading them with sods or other heavy materials.

The immersion is, or ought to be, carefully attended to; for that which happens to be exposed above the surface of the water is materially injured.

The "*steeping*" is continued a longer or shorter time, according to the weather and other

other circumstances. It ought to lie until it be sufficiently tendered without being rotten; but to catch this state requires a nicety of judgement, which can be learnt from long practice only. It generally lies about ten days in steep; sometimes a fortnight.

From the "line-pit" it is carried to the "rating-ground;"—a piece of unbroken aftergrass, where the sheaflets are untied, and the flax spread thin upon the grass. It is calculated that a full crop ought to cover as much ground as it grew upon. Here it lies until it be sufficiently "rated;" namely, until the more woodlike substance of the stems will separate freely from the filaments or flaxen fibres, while these remain yet untainted; therefore the length of time of rating, like that of steeping, depends much on the weather, and can be ascertained only by the daily observation of a person whose judgment has been matured by long experience.

If when it reaches this state, the weather be such that it will not dry as it lies upon the grass, it is set upon its butts in parcels resembling sugar-loaves, or large untied gails. When dry, it is laid up in a barn or other
con-

convenient place to be "swingled," when leisure and conveniency will permit.

The "*swingling*"—(and, generally, the "steeping" and the "rating")—is done by men who make a business of it, travelling from place to place wherever flax is under cultivation.

The process of swingling is that of separating the woody substance from the filaments. To effect this, the rough stubborn stems are mangled in a "break;" an instrument which breaks the brittle substance of the stem—provincially, the "bun"—into fragments, without separating them from the filaments. The separation is effected by beating, or rather *bewing* the mangled stems against a "swingling stock"—(an upright stout board or slab) with a "swingle-hand"—or wooden broad-axe; the swingler from time to time drawing out the tow or short broken filaments, by means of a "foot-heckle"—(resembling the tools of the flax-dressers);—and thus using alternately the swingle-hand and the heckle, proceeds until the line be rendered fit for the flax-dresser; namely, until the principal part of the fragments

ments—provincially, “shiva” or shivers,—and the principal part of the tow or short filaments, be extricated; when the flax is folded up into bundles for sale.

The swingling is done by the stone, at a price proportioned to the length and stubbornness of the crop. Flax which is short or tough requires much more labour than that which is longer, or from which the shivers part freely. From eighteenpence to two shillings a stone, with board and lodging, is given for swingling: about twentypence is the common price. The work is very laborious.

VII. MARKETS.—A small manufactory of coarse linen being carried on in the Vale, a market is always at hand. The price of rough flax varies with foreign markets and its intrinsic quality. Seven to eight shillings a stone (of fourteen pounds) may, I believe, be considered as a medium price. From thirty to forty stones, an acre a middling crop.

GENERAL OBSERVATIONS. From this sketch of the culture and management of flax it appears, that the goodness of the crop depends

in some measure upon its *length*; and this upon its *evenness* and *closeness* upon the ground. The stems should be *tall, straight, and slender*. Three feet high is a good length of stem; and the thickness of a crow's quill a good thickness. A fine stalk affords more line and fewer shivers than a thick one does. A *tall, thickset crop* is therefore desirable.

But, unless the LAND BE GOOD, a *thick* crop cannot attain a sufficient *length* of stem. Hence the folly of sowing flax on land which is unfit for it.

Nevertheless, with a *SUITABLE SOIL*, a *sufficiency of seed, evenly distributed*, and a *favourable season*, flax may turn out a very profitable crop.

The flax crop, however, has its *DISADVANTAGES*: it interferes with harvest, and is generally believed to be a great exhauster of the soil, especially when its seed is suffered to mature *.

Its

* In this case, the sheaflets are set up in stooks in the field; and, when dry, are carried to the barn, thrashed, rated, sent to the watering-pit, and treated as prime flax.

Its cultivation therefore ought to be confined to RICH GRASSLAND DISTRICTS, where harvest is a secondary object, and where its exhaustion may be rather favourable than hurtful to *succeeding arable crops*, by checking the too great rankness of rich fresh-broken ground.

It is also evident from the foregoing sketch, that much judgement is requisite to the right-ordering of flax. No man, therefore, ought to attempt its cultivation on a large scale until he has himself studied the various processes maturely, in a District where it is cultivated, or has procured from such a country a person who is enured to them by long practice.

But no prudent man will put himself to either of these inconveniencies before he has tried, by small EXPERIMENTS, whether his SOIL be sufficiently AFFECTED BY FLAX, to ensure, under proper management and a good season, a moral certainty of a CROP.

TOBACCO.

10.

T O B A C C O.

SOME YEARS ago (mostly in the year 1782) large patches of tobacco, together amounting to several acres, were grown in this Vale: and in the Vale of York a still greater quantity was cultivated.

In this District it did not excite the notice of legal authority: in the richer parts of the Vale, where the greatest quantity was raised, it was cured and manufactured by a man who had formerly been employed upon the tobacco-plantations in America; and who not only cured it properly, but gave it the proper cut, and finally prepared it for the pipe.

But in the Vale of York, the cultivators of it met with less favourable circumstances. Their tobacco was publicly burnt, and themselves severely fined and imprisoned. Penalties,

ties, it was said, were laid to the amount of thirty thousand pounds *.

This was enough to put a stop to the illegal cultivation of tobacco. But, perhaps rather unfortunately, it has likewise put a stop to the cultivation of that *limited quantity* which the *law allows* to be planted for the purposes of "phyfic and chirurgy."

The quantity of land allowed to be cultivated for these purposes is, I believe, HALF A ROD, which is somewhat more than FIFTEEN SQUARE YARDS of ground; a patch of ground sufficient, under proper management, to raise tobacco enough for all the *medical* purposes of a farm-house; in which it is, on many occasions, useful. In cutaneous disorders of cattle and sheep, it is universally applied.

I will therefore just mention such circumstances respecting its cultivation in this neighbourhood as I collected in the autumn of 1782. I had not an opportunity of seeing the plants on the ground.

The SPECIES was probably *Nicotiana rustica*, the ENGLISH TOBACCO; so called from

* The penalty, I believe, is 10l. a rod, or 1600l. an acre.

from the circumstance of its being the first species cultivated in England.

The *seeds* were procured at the seed-shops, and handed about from one cultivator to another.

The *seed-bed* as rich and fine as possible.

The *time of sowing* as soon as the weather became warm enough to make it vegetate : perhaps in April.

When the seedling plants were strong enough to bear removing, they were *transplanted* from the seed-bed to the patch on which they were intended to stand.

In the practice of one, they were planted out in the *quincunx* manner, a foot asunder : in that of another, in *rows* two feet apart, and one foot asunder in the rows.

In both cases, they were carefully *hoed*, and kept free from weeds during the summer.

In autumn, when the flowers began to drop off, they were *cut* and *dried in the shade*.

When dry, the leaves were *picked off*, and *pressed down close*, in casks or other vessels.

The spring of 1782 being late, the plants did not, upon weak soils, reach maturity before the frosts began to set in. Hence a rich

forcing soil seems to be necessary to the culture of tobacco in this climate.

The vegetation, however, may be greatly forwarded by forcing the seedling plants in a hot-bed, and transplanting them out as soon as the frosts of spring are over.

II.

CULTIVATED GRASSES.

THE SPECIES of *grasses*,—or more properly HERBS,—cultivated in this District for the purposes of hay and pasturage are,

Clover—*trifolium pratense*—red clover *.

White clover—*trifolium repens*—white clover †.

Trefoil—*trifolium agrarium*—hop-clover.

Trefoil—*trifolium procumbens*—trefoil.

Rye-grass—*lolium perenne*—rye-grass.

Hay-

* RED CLOVER; a cultivated variety of the MEADOW TREFOIL. See NAT. GRASSES.

† WHITE CLOVER; a cultivated variety of the CREEPING TREFOIL.

Hay-seeds—*holcus lanatus*.

Rib-grass—*plantago lanceolatus*.

Cinquefoil—*bedysarumonobrychis*--saintfoin.

These species are cultivated separately or miscellaneously, as soils and circumstances point out. The DURATION of the intended ley is the first thing considered; therefore the principal division of the subject is into

1. Temporary leys.
2. Perennial leys.

I. TEMPORARY LEYS. The *annual* ley, which is now common in most parts of the kingdom, and the *biennial* ley, which is prevalent in Norfolk, are almost equally strangers in this District.

Fallowing for wheat is still a common practice here. Clover stubbles are seldom used as matrices for that crop. An ill-grounded notion prevails that wheat after clover breeds quicks!

If land be stocked with couch when the clover is sown, the succeeding wheat-crop, no doubt, by occupying the soil so long with only a single plowing, increases the quantity. There is no worse management than sowing wheat on a *foul* clover ley; but this

is no argument against annual leys. If the land be clean when the clover-feed is sown, it will as soon breed sugar-canes as quicks.

In a grassland country, however, clover leys are less wanted than tillage; and in the cooler, better-soiled parts of the Vale they may, perhaps without much impropriety, be dispensed with. But on the drier thin-soiled lands which lie upon the marginal heights, temporary leys would be found far preferable to the unproductive "meadows" which now occupy a considerable part of their surface. The Norfolk system of husbandry appears to me to be singularly well adapted to the lands of the "high towns;" the more productive parts of which ought not, in my opinion, to be permitted to bear more than two crops of corn, nor two crops of grass, successively.

II. PERENNIAL LEYS. Formerly, in this as in other Districts, arable land was laid to grass by the mere cessation of plowing. When land refused to produce corn any longer, it was permitted to lie down to *rest*; or, in other words, to lie waste. For several years it produced nothing but weeds; and these, of course, of the leanest kind. The wild
birds

birds were its only occupiers, At length, however, the grasses, by some mysterious process of nature, would begin to make their appearance. But their progress was slow : it was twenty years, perhaps, before a full crop of them was produced.

Before the cultivation of grasses was known in the Island, such barbarous management was excusable ; but how this and other counties could continue it more than half a century after the cultivation of them was fully established in a neighbouring county (Norfolk), is a matter of some astonishment. Thirty years ago the cultivated grasses were strangers in the Vale. The production of perennial leys was left wholly to nature ; and even yet there are some *few* individuals who remain bigots to Nature's practice.

It is, no doubt, a fact as notorious as it is interesting, that all the charming old grasslands with which *this* neighbourhood at present abounds is of NATURE'S LEYING. For richness and variety of herbage (as will appear in the next section) it is no where, perhaps, exceeded. It is also notorious that there has been very little, if any, well-her-

bagged meadow produced in this District through the means of *artificial grasses*.

Striking, however, as these facts may be, they only afford matter of argument, do not bring proof, against the CULTIVATION of PERENNIAL LEYS.

If a soil already *exhausted by corn crops*, and *foul through a want of tillage*, be rendered still fouler by having the *seeds of weeds*, under the denomination of "hay-seeds," *sown* over it; and if, added to this, the weedy crop, which such management must necessarily afford, be *mown* year after year and the produce *carried off*, it is no wonder that the sward, instead of improving by age, should annually go off, and that the soil should at length require to be given up again to the plow,

On the contrary, if a soil, naturally suited to grass, in good heart, and thoroughly cleansed, be sown with the seeds of herbage suitable to its nature, and free from the seeds of weeds; and if for a few years the young ley be pastured in the spring, and the weeds and broken grass be swept down with the scythe after Midsummer, a well-herbaged durable

able ley may, on a certainty, be produced, and this without *one* year's crop being lost.

The DURATION of good herbage, however, depends much on the *nature* of the SOIL, and much also on the *state* in which it has been kept. Land which has been kept in TILLAGE for centuries is peculiarly affected by the grasses, which, under such circumstances, will flourish for a length of time, even on soils which are not peculiarly adapted to them. Some of the grasslands of this neighbourhood are now growing toward a century old; yet notwithstanding they are generally mown year after year without intermission, they are still in a flourishing state: not, however, I apprehend, entirely owing to the method in which they were leysed, but to the land having previously been long in TILLAGE.

Nevertheless, I am of opinion, that the *variety* and *closeness* of the herbage under notice arises, in some measure, from the METHOD OF LEYING. But taking this for granted, and admitting that the produce is somewhat improved or increased by an endless variety and an extreme closeness of herbage, no man, without the pale of dotage,

can consider this advantage as a full compensation for the loss of at least *ten* years crops.

Of *late years*, the art of leying land to grass has, in this District, made rapid strides toward perfection.

In the CHOICE OF HERBAGE, judicious husbandmen are guided by the *nature of the soil* to be swarded. On the southern height a calcareous soil, SAINTFOIN, is cultivated as a perennial ley. In the Vale, where the soils are non-calcareous, a MIXTURE of grasses are cultivated for that purpose.

Formerly, "HAY-SEEDS" were in high estimation, and they have still some few advocates left. They consist either of a collection of grasses and weeds as collected from the hay-loft, or a less foul selection of the MEADOW SOFT GRASS, which is cultivated separately, and thrashed as corn for its seeds.

But this is far from being an eligible grass for cultivation, and is now entirely exploded by judicious husbandmen; among whom RYE-GRASS has at length grown into due estimation; and has very properly supplanted in their esteem the whole tribe of hay-seeds*.

RYE-

* The growers of the seeds of the soft grass are the only persons who have profited by its cultivation. Eighty bushels an acre have been produced.

RYE-GRASS, nevertheless, has still its enemies. But they are either men who are unacquainted with it, or who have been unfortunate in their experience.

If the seeds be foul (as is too generally the case) the herbage will of course be of a bad quality. If it be suffered to run up in the spring, before stock be turned upon it, much of it will no doubt be left uneaten. If suffered to stand too long before it be mown, its hay will of course be ordinary. Under bad management even the wheat crop is unprofitable. But will any man bring this as an argument against the intrinsic quality of wheat; or against its being proper to be cultivated in soils and situations to which it is adapted?

The seeds of rye-grass should be *winnowed*, and freed from the seeds of weeds, with the same scrupulousness that is bestowed on the seed of wheat or other grain.

If rye-grass be intended for PASTURAGE, it ought to be broken as *early in spring* as the land will bear stock; which ought to be so proportioned, that it never can get above a moderate bite.

If

If it be shut up for HAY, it ought to be mown as soon as the seed-stems are fully formed; *before the flowers come out.*

If it be intended for SEED, it ought to stand until *the flowers be fully blown.* But it must not be expected, in this case, that the *straw* will prove *hay*. Who ever expected *hay* from oats or barley, *which stood to mature the seed?*

As a *spring* food, RYE-GRASS is indisputably preferable to every other grass; and in *autumn* it renews its nutritious bite. This property, added to its productiveness, and to the facility with which its seeds may be collected in quantity, give it a decided pre-eminence to every other blade-grass at present known in these kingdoms.

But rye-grass, like other early grasses, remains in a great measure unproductive during the *summer* months. This renders it improper to be sown *alone*, for PASTURAGE.

WHITE CLOVER, the TREFOILS, or other *summer herbage*, is requisite to be cultivated with it.

All perhaps that is wanted in addition to these, in order to render the business of cultivating perennial leys as nearly perfect as common

common practice may require, is one or more SUMMER BLADE-GRASSES of a nutritious quality and productive growth, and whose seeds may be easily collected, separately, from the seeds of weeds.

The MEADOW FESCUE (*FESTUCA elatior*) is most likely to answer the purpose.

The MEADOW POE (*POA pratensis*) has some properties which recommend it strongly; but its seeds are not easily separable. Nevertheless, it might be worth some pains to cultivate this grass. It is strictly a *summer-grass*. It blows sufficiently late, and bears drought with uncommon hardiness. I have seen it flourish on a wall throughout summer. And during the drought of 1786, Mr. Curtis's garden afforded a striking instance of its nature in this respect: it remained green, and in growth, while its neighbours were most of them scorched up with drought.

This District has adopted the NARROW-LEAVED PLANTAIN as a summer grass. As an article of *pasturage* for cattle and sheep, it is in high esteem: it is not, however, well-affected by horses; and as an article of *hay* it is detrimental to the crop; retaining its sap
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an unusual length of time; and when fully dry falls into a small compass; or is broken into fragments, and left behind in the field. An advantage of this grass is, that its seeds may be easily procured in an unadulterated state. A small proportion of it may be eligible: it has now stood the test of twenty years established practice, and seems to be still in good estimation; even among observant husbandmen.

THE MIXTURE OF SEEDS for a perennial ley varies in this District with the spirit and judgement of the occupier. Some make choice of the cheapest, and imagine a small quantity to be sufficient; while others choose those which are most suitable to their respective soils, and think they cannot throw on too many.

The most promising young perennial ley which I have seen in the Vale, and which is in the occupation of one of the largest and best farmers in it, was seeded with the following seeds and proportions an acre: namely, fourteen pounds of WHITE CLOVER; and fourteen pounds of RED CLOVER, TREFOIL,

RIB-GRASS, and RYE-GRASS, mixed in equal proportion of weight.

But the more general mixture is fourteen pounds of RED CLOVER, WHITE CLOVER, TRE-FOIL and RIB-GRASS mixed in equal quantities; with a bushel or two of RYE-GRASS sown separately.

This, however, is an unnecessary quantity of RYE-GRASS; a gallon to a peck an acre of clean *winnowed* seed appears in the above instance, as well as in the Norfolk practice, to be abundantly sufficient.

The AFTER-MANAGEMENT of perennial leys is, in the ordinary practice of this District as it is in that of most other places, extremely injudicious.

Letting the land lie eight or ten years in worse than a state of waste is very little wider from the line of right management than mowing a young perennial ley every year, and carrying off the produce. They are two extremes which ought to be equally avoided. One of them is giving up present profit, entirely, for future advantage: the other, regardless of future advantage, is grasping at present profit.

In

In tenants at will, without confidence in their landlords, there may be some excuse for such management. But they are not, perhaps, aware that by such conduct they are destroying that confidence which landlords ought to have in their tenants: thereby militating against themselves and their profession.

Landed gentlemen in general are tenacious of their old grassland: and with good reason: even though it might, for a time, be worth thrice the value in a state of aration.

An instance occurs in this neighbourhood, in which a piece of old grassland broken up to arable has thrown out its purchase-value, as grassland at the time of breaking up, in the first three crops.

All sward, unless the soil be singularly good, the management extraordinary, and the manurings frequent, will in time become unproductive. Even the sward of well-soiled commons, off which no produce has been taken, is, when inclosed, found weak and unprofitable.

Nevertheless, it may be more prudent in men of landed estates to hand down their old grassland

grassland to their successors in the state in which it is; than to permit it to be broken up and reduced, by improper treatment, to a state still less valuable. And were there no means of avoiding the evils of improper management in tenants, landlords would be fully warranted in a rigid refusal of their requests to break up old grasslands, though unproductive and unprofitable.

But, in the management of an estate, GRASSLAND and HEDGES stand in nearly the same predicament. It is the tenant's interest to *injure* them; and the landlord's business, of course, to look to their *preservation*.

If on a farm, already *in due proportion* as to GRASSLAND and ARABLE, the tenant requests to break up a piece of unproductive sward, it is a *duty* which the landlord owes to the community at large, to grant his request. But it is, at the same time, a duty which he owes to himself and his successor, to oblige him to lay down an equivalent of arable land to grass.

Not, however, a piece which has been exhausted and rendered foul by a succession of corn crops; but one which is in heart, and
has

has been duly cleaned by a *whole year's fallow*. Not, however, by sowing it with foul seeds, or an improper assortment; but (where due confidence cannot be placed in the tenant) with *clean seeds* furnished by the landlord at the tenant's expence.

The after-management calls equally aloud for the landlord's attention. If he voluntarily suffer it to be eaten with sheep, or to be poached with other stock, the first winter; if he suffer the tender bottom grasses to be smothered in their infant state by the taller herbage running up for hay, or the soil to be exhausted by carrying off a crop during the first three years; or if he permit it, under ordinary circumstances, to be afterwards mown (except sweeping off the weeds and broken grass after Midsummer) oftener than every second year;—he is doing injustice to himself and the community.

It must be understood, however, that the management here recommended is applicable only to *perennial* lays of twenty, fifty, or a greater number of years: not to *temporary* leys of one, two, or even five or six years. In this case, herbage becomes an ARABLE CROP,

CROP, and calls for no other attention than that which the ordinary management of an estate requires.

SAINTFOIN LEY. This is a perennial ley; in the making of which both landlord and tenant are generally interested.

The District under survey is singularly favourable to the study of the culture of saintfoin. In some parts of it, it is cultivated with great profit. In others its culture has been repeatedly attempted without success.

The finest saintfoin I have seen grows in the immediate neighbourhood of MALTON. Three tons of hay an acre are said to have been cut. I have seen crops, which, to appearance, would not afford less.

The *soil* a dry calcareous loam, from ten to twenty inches deep. The *subsoil* a marly rubble, from two to three feet deep; lying on an unfathomed rock of soft limestone. (See Art. MANURE.)

One hundred grains of the cultivated *surface soil* of "Peasly Hill" affords twenty-five grains of calcareous matter.

One hundred grains of the earthy part of the *subsoil*; among which the plants of saint-

foin, in all probability, principally feed; contain fifty-nine grains of calcareous earth*.

The analysis of the *rock* appears in Vol. I. page 336.

About BROMPTON, in the north-east quarter of the Vale, good saintfoin is grown; but, I believe, in no way comparable with that of Malton.

The *soil*, a lightish loam; pretty turnep and barley land; varying in depth.

The *subsoil*, a calcareous loam; mixt with limestone or with redstone gravel; and lying on a limestone, or on a redstone rock. In either case, the land is productive

* It has been conceived that saintfoin feeds on the stones themselves; not on the soil which is mixt among them, or which covers them; and this has served to account for the superiority of the saintfoin of Malton. But it seems much better adapted to the nature of plants to feed among soil, than in stones; especially when the soil is of a nature similar to that of the stones which mix among it. The lower part of the subsoil, which forms the upper part of the rock, is composed of small stones mixed with an efflorescent mould, formed in the interstices of the stones, which mould is *almost wholly calcareous*; so that the plants in this case have a sufficiency of calcareous matter to pasture among without feeding upon the stones; which, though *soft*, cannot in this case be said to be *porous*.

of

of saintfoin; in proportion, it is said, to the depth of the soil; that is, the depth between the surface of the soil and the rock; lasting twenty years, more or less, according to the depth of the land.

One hundred grains of the *natural soil* (taken from the side of the lane between Brompton and Sawdön) yields three grains of calcareous matter.

One hundred grains of the *subsoil* of an adjoining inclosure, taken from the top of a loose mixt-stone rock, at about eighteen inches deep, affords fourteen grains of calcareous earth.

The *limestone* is of a nature between that of Malton and that of Pickering (See Art. MANURE), namely, a granite of a middle quality as to hardness.

The *redstone* is of a singular nature; being intermixed with calcareous granules, exactly similar to those of the softest of the Malton limestone. One hundred grains of this *redstone*, collected among the *soil* above analyzed, yields thirteen grains of calcareous matter. The stone in this case porous; sufficiently

open for the fibrils of plants to insinuate themselves.

In the neighbourhood of PICKERING saintfoin has been repeatedly tried; but, I believe, without one instance of tolerable success. The plants, I understand, rose very well from the seed; but never got up to a crop; and in a short time disappeared.

On examining a piece of limestone land which was sown with saintfoin, by my father, some fifty or sixty years ago, I find, in one particular part of it, a few plants still surviving.

To ascertain the nature of the pasturage which could give such unusual longevity to these plants (supposing them to be remains of the originally cultivated roots), I dug down by the side of two plants which grew within a few inches of each other: one of them remarkably healthy, though not luxuriant: the other, a declining plant; half of its top decayed.

The roots struck downward, perpendicularly, and parallel to each other; throwing out a few slender side rootlets.

Near

Near the surface they were accompanied with the roots of the burnet, and of the burnet-rose; neither of which reached more than two feet deep.

At the depth of three feet the root of the decaying plant had rotted off; having nothing but the fibrils above left to support it.

At four feet the vigorous plant reached the top of the rock; or rather, the loose stones which lie upon the rock.

The fields of pasture of this plant were evident. The root was simply a thong, reaching from top to bottom; tapering from the size of a reed to that of a crow-quill. The fibrils on the side were merely hairlike; except at about two feet deep, where some threadlike rootlets were thrown out into a thin layer of somewhat palish-coloured clay; and except at about three feet and a half deep a similar ramification had been made in a similar but paler-coloured earth. At four feet a general ramification had taken place; the main root there separating into large branches; striking nearly horizontally; not upon the top of a hard impenetrable rock (though upon a stone of about six inches

over) but in a stratum of still paler clay; some three or four inches thick: a proof that it had here met with a soil suitable to its nature; only one of its rootlets (not thicker than a stem of rye-grass) having attempted to go lower.

In testing the several strata, I find that the three seams of clay, alone, discover symptoms of calcareosity. Neither the top-soil; nor any of the intervening strata, appear to contain any thing of a calcareous nature; except some fragments of hard limestone which mix more or less with the whole.

One hundred grains of the uppermost seam of clay yield seven grains and a half of calcareous matter: one hundred of the middlemost, twenty-three and a half grains: one hundred of the lowest stratum, the main field of pasturage, twenty-nine grains.

GENERAL OBSERVATIONS. From the sum of this evidence, and from every part of it, it appears, demonstrably, that SAINTFOIN delights in CALCAREOUS EARTH. And we may almost infer, with equal certainty, that it will not *flourish* in a situation where both the soil and the substrata are destitute of calcareosity.

In

In another part of the field last under notice, the rock rises to within ten inches of the surface; terminating in flat *clean* stones, without any admixture of mould or efflorescent matter; and the soil perfectly uncalcareous. Here not a leaf of saintfoin is to be seen. The plants, in all probability, did not survive the first year.

Much of the limestone land above Pickering is of a similar nature: this accounts for the miscarriages which have taken place.

Nevertheless, the tops of some of the limestone quarries (as the Castle Bank) terminate in loose stones mixt with grey, efflorescent mould, and have fissures containing efflorescent matter, which, I find, is purely calcareous. Among these saintfoin no doubt would flourish. There may be considerable patches of this land; and they appear to me to be well worth searching for. To throw away seed, and perhaps two or three years crops, merely on supposition, is highly imprudent. But a few hours, or a few days, expended in the search of a proper soil, might be time well employed.

The great ADVANTAGE OF SAINTFOIN, and that which distinguishes it in a striking manner from *all other crops*, is that of its feeding principally *below the field of ordinary vegetation*: bringing up to the surface vegetable matter, which, without it, would for ever have lain useless to agriculture; and enriching the cultivator with treasures which, without its assistance, might as well have been situated at the earth's center *. While he is annually reaping a crop of the most nutritious herbage agriculture is at present acquainted with, his soil, so far from being exhausted, is in all probability gathering strength to enable it to throw out, in future, a succession of *arable crops*: besides the additional advantage arising from the quantity of *manure* which he has been extracting from the bowels of the earth, by twenty or thirty crops of saintfoin.

NATURAL

* On the Malton side of the Vale, *it is said*, the roots of saintfoin have been traced to the depth of fourteen feet. I have seen roots, which near the surface have been nearly as thick as an ordinary walking-cane.

12.

NATURAL GRASSES.

IN A DISTRICT where grassland abounds; and where the soil varies from the coldest clay to the most fertile loam; and from this to the most barren sand in the bleakest situation; the SPECIES OF GRASSLAND must be in some measure indefinite.

But in the GRASSLAND MANAGEMENT, the *intrinsic quality* of the SOIL is less attended to than its *situation*, with respect to *dryness* and *moisture*—*warmth* and *coolness*.

In *this* quarter of the Vale, three SPECIES of grassland are sufficiently discriminable to merit separate descriptions: namely,

1. Low-land Grass;
2. Middle-land Grass;
3. Up-land Grass.

I. LOW-LAND GRASS. This is provincially called INGLAND, or INGS,—a term
synonymous

synonymous with MEADOW, as used in some Districts; or CAR, which is synonymous with MARSH or FEN, and with the *meadow* of Norfolk.

While the Vale lay in its open state, the INGS were the only *mowing* lands it contained. In ordinary situations, all the land which lay out of the water's way was converted to *arable* or common-field land; or to common *pasture* grounds.

The Ings are invariably SITUATED low; by the sides of rivers or rivulets; generally lying flat, and subject to be overflowed in times of floods.

The SOIL of the Ings is mostly a firm tenacious clay, on a cold retentive subsoil. In some places the clay is covered with a stratum of black vegetable mould: generated, probably, by the overflowing of springs, while the land lay in a state of nature, before common-shores and ditches were opened.

The HERBAGE of the LOWLANDS OF PICKERING consists chiefly of the following plants; which I have *endeavoured* to place according to their frequency in the *open Ings*, which have in all probability been *mown*,
without

without intermission, during the last thousand years.

Many of the plants in the lower part of the list may not grow in these old-mown grounds; but are common on the same soil, and in a similar situation, where the ground is *inclosed*, and may have been *pastured*, and improved by *draining*, &c. but has *never been plowed*.

| <i>Provincial.</i> | <i>Linnean.</i> | <i>English.</i> |
|--------------------|------------------------------|-----------------|
| Pig-leaves, | <i>anopordon acanthium</i> , | cotton |
| | | thistle. |

| | | |
|------------|---------------------------|-------------|
| Blue-caps, | <i>scabiosa succisa</i> , | meadow sca- |
| | | bious. |

| | | |
|--|----------------------------------|----------------|
| | <i>sanguisorba officinalis</i> , | meadow burnet. |
|--|----------------------------------|----------------|

| | | |
|--|-----------------------------|---------------|
| | <i>juncus articulatus</i> , | jointed rush. |
|--|-----------------------------|---------------|

| | | |
|---------------|----------------------------|------------------|
| Clock-leaves, | <i>schænus nigricans</i> , | black- |
| | | headed bog-rush. |

| | | |
|--|------------------------------|----------------|
| | <i>cardamine pratensis</i> , | common ladies- |
| | | smock. |

| | | |
|--|--------------------------------|---------|
| | <i>betonica officinalis</i> *, | betony. |
|--|--------------------------------|---------|

Henpenny.

* BETONY. This is a common article of herbage in the grasslands of this District; abounding in almost every soil, and in every situation, from the marsh to the mountain. The term *Wood Betony* is ill applied to it; at least in this division of the Island.

Provincial. *Linnean.* *English.*
 Henpenny,—*rhinanthus crista-galli*,—yellow
 rattle.

valeriana dioica,—marsh valerian.

anemone nemorosa,—wood anemone!

juncus campestris,—grass-rush,

Crakefeet,—*orches*,—orchises.

Segs,—*carices*,—fedges.

Hay-seeds,—*holcus lanatus*,—meadow soft-
 grass.

anthoxanthum odoratum,—vernal.

poa trivialis,—common poe.

agrostis canina,—brown bent grass.

briza media,—trembling-grass.

festuca duriuscula,—hard fescue-grass.

aira cærulea,—purple air-grass.

phleum nodosum,—bulbous cat's-tail grass.

orobus tuberosus,—bulbous pea.

lotus corniculatus,—birdsfoot trefoil.

hypochaeris radicata,—long-rooted
 hawkweed.

ferratula tinctoria,—dyer's saw-wort.

achillea ptarmica,—goose tongue.

peucedanum filans,—meadow saxifrage.

vicia cracca,—blue-tufted vetch.

polygala vulgaris,—milkwort.

pedicularis

Provincial. Linnean. English.

pedicularis palustris,—marsh lousewort.

Spiræa ulmaria,—meadowsweet.

lythrum salicaria,—spiked willowherb.

arundo calamagrostis,—hedge reed.

carduus palustris,—marsh thistle.

lychnis flos-cuculi,—meadow campion.

Seaves,—*juncus effusus*,—common rush.

Reshes,—*juncus inflexus*,—wire rush.

cineraria palustris,—marsh fleabane.

Horseknots,—*centaurea jacea*,—meadow knobweed.

achillea millefolium,—milfoil.

Parnassia palustris,—grass of Parnassus.

cerastium vulgatum,—common mouse-ear.

potentilla anserina,—silverweed.

avena flavescens,—yellow oat-grass.

lolium perenne,—ray-grass.

Windlestraws,—*cynosurus cristata*,—crested dog's-tail.

festuca elatior,—tall fescue.

agrostis alba,—marsh bent-grass.

alopecurus geniculatus,—flore foxtail.

festuca fluitans,—flore fescue.

Bulls

Provincial. Linnean. English.
 Bulls foreheads,—*aira cæspetosa*,—turfy air-
 grafs.

latbyrus pratensis,—meadow vetchling.

trifolium pratense,—meadow trefoil.

lotus corniculatus,—birdsfoot trefoil.

ranunculus acris,—common crowfoot.

ranunculus repens,—creeping crowfoot.

Sourdocken,—*rumex acetosa*,—common sorrel.

angelica sylvestris,—wild angelica.

comarum palustre,—marsh cinquefoil.

chrysanthemum leucanth.—ox-eye daisy.

hypericum quadrangulum,—St. Peter's
 wort.

prunella vulgaris,—self-heal.

Woodwesh,---*genista tinctoria*,---dyer's broom.

salix,—dwarf bitter willow.

epilobium parviflorum,---small-flowered
 willow-herb.

eriophorum vaginatum,---cotton-rush.

spergula nodosa,---marsh spurrey.

Bog violet,---*pinguicula vulgaris*,---bog violet.

hydrocotele vulgaris,---penny-wort.

lysimachia nummularia,---money-wort.

mentha,—mints.

polygonum hydropiper,---smartweed.

sum

Provincial. Linnean: English.

sium nodiflorum,---creeping water-parf-
nep.

caltha palustris,---marsh-marigold.

iris pseud-acorus,---yellow flag.

Threefold,---*menyanthes trifoliata*,---bog-bean.

equisetum palustre,---marsh horsetail.

galium palustre,---white bedstraw.

veronica beccabunga,---brook-lime.

sisymbrium nasturtium,---water-cress.

The PRODUCE of this species of old grass-land is much below par. The *quality* may be judged of by the herbage it bears; and the *quantity*, even on the inclosed parts, is not great. The parts which yet remain as open common meadow, are still less productive. The surface in many places is more than half of it occupied by the leaves of the COTTON-THISTLE; and in others, entire patches are covered with the BOG-RUSH. The medial produce about half a load of hay (if it merits the name) an acre. The rent five to eight shillings.

GENERAL OBSERVATIONS. Nevertheless, it appears demonstrably, from the patches of corn which are intermixed with this lowland
grass,

grass, that its present unproductiveness is not so much owing to the nature of the *soil* or the *situations*, as to the *age* and the present *quality* of the HERBAGE.

A stronger instance need not be produced of the great impropriety, *in some cases*, of obstinately withholding permission to break up old grassland.

Who, but a mere botanist, can see without disgust his estate occupied by such a tribe of *weeds* as are here enumerated? especially when the means of extirpation are so easy and so profitable. All that is requisite to render the land of double its present value, is to annihilate the present sward, and raise up a fresh one in its place: in doing which, if properly done, a course of corn-crops may be profitably taken.

But neither the soil nor the situation of lands of this nature fit them for a *continuance* of *arable crops*. They ought to be used as a *means* only of purging the soil from its former impurities, and rendering it fit for the reception and nourishment of herbage; *every blade and leaf of which is nutritive*.

In the instance under notice, the renovation of the sward is now rendered easily practicable. The Commissioners of Inclosure for this township, with a degree of judgement and spirit which do them the greatest credit, and for which the township will for ages be indebted to them, have sunk a common-flood through the center of these lowlands, every acre of which is now plowable; consequently every owner may now choose whether he will continue a sward of palustrean weeds, equally unproductive and innutritious to stock; or whether he will convert it into nourishment for a course of corn-crops, and replace it with a sward of grasses and legumes equally productive and nutritious.

How many thousand acres of land in these kingdoms now lie, or might easily be placed, in a similar predicament.

II. MIDDLE-LAND GRASS. This consists of the prime part of the common-field land, laid down to grass in the *natural* way, which has been mentioned.

The SITUATION *cool*, but in general *dry* enough to permit the soil to bear stock in winter.

The soil a rich sandy loam : the cooler parts deep, and mixed with a few pebbles ; the higher parts shallower, with a mixture of redstones : equally productive of grass and corn.

The HERBAGE consists of the following plants. The last twelve species grow principally near the hedges, or toward homesteads ; but are sometimes found in the areas of fields.

| <i>Provincial.</i> | <i>Linnean.</i> | <i>English.</i> |
|--------------------|---------------------------|------------------|
| Windlestraws | <i>cynosurus cristata</i> | crested dogtail. |

dactylis glomerata—orchard grass.

agrostis canina—brown bent-grass.

anthoxanthum odoratum—vernal.

White grass—*holcus lanatus*—meadow soft-grass.

briza media—trembling grass.

avena flavescens—yellow oat-grass.

Rye grass—*lolium perenne*—raygrass.

poa trivialis—common poe.

poa annua—dwarf poe.

poa pratensis—meadow poe.

alopecurus pratensis—meadow foxtail.

festuca

Provincial. Linnean. English.

festuca elatior—tall fescue.

festuca duriuscula—hard fescue.

bromus mollis—soft brome-grass.

avena elatior—tall oat-grass.

avena pubescens—rough oat-grass.

agrostis capillaris—fine bent-grass.

hordeum murinum—common barley-grass.

juncus campestris—grass rush.

Ribgrass—*plantago lanceolatus*—narrow plantain.

Red clover—*trifolium pratense*—meadow trefoil.

White clover — *trifolium repens* — creeping trefoil.

Trefoil—*trifolium procumbens* — procumbent trefoil.

lotus corniculatus—birdsfoot trefoil.

latyrus pratensis—meadow vetchling.

Fitches—*vicia sativa*—meadow vetch.

ranunculus acris—common crowfoot.

ranunculus repens—creeping crowfoot.

ranunculus bulbosus—bulbous crowfoot.

leontodon taraxacum—common dandelion.

leontodon hispidum—rough dandelion.

hypochaeris radicata—long-rooted hawkweed.

Provincial. Linnean. English.

Henpenny — *rhinanthus crista galli* — yellow
rattle.

betonica officinalis — betony.

cerastium vulgatum — common mouse-ear.

valentia cruciata — crosswort.

prunella vulgaris — self heal.

Birdseye — *veronica chamaedrys* — germander
speedwell.

ranunculus ficaria — pilewort.

Cowstriplings — *primula veris* — cowslip.

Bairnworts — *bellis perennis* — daisy.

Cushia — *heracleum sphondylium* — cowparsnep.

Horseknobs — *centaurea jacea* — meadow knob-
weed.

Seggrums — *senecio jacobæa* — common rag-
wort.

achillea millefolium — milfoil.

Sourdocken — *rumex acetosa* — common sorrel.

campanula rotundifolia — bluebells.

plantago major — broad plantain.

vicia cracca — blue-tufted vetch.

vicia sepium — bush vetch.

erium hirsutum — two-seeded tare.

tragopogon pratense — yellow goatsbeard.

agrimonia eupatoria — agrimony.

geranium

Provincial. *Linnean.* *English.*

geranium pratense—crowfoot cranesbill.

Mauls—*malva sylvestris*—common mallow.

malva rotundifolia—round-leaved mallow.

Cicely—*chærophylum sylvestre*—orchard weed.

Dockens—*rumex crispus*—curled dock.

rumex obtusifolius—broad-leaved dock,

urtica dioica—common nettle.

The PRODUCE is such as may be expected from the *herbage*, the *soil*, and the *situation*.

An acre of some of the lands lying immediately round the town of Pickering, will afford *pasturage* for a cow from Mayday to Michaelmas ; not by being forced with manure, but in its intrinsic nature. In general, three acres are allowed to two cows ; but they are of uncommon size, nearly equal to three middle-sized cows.

The produce of *hay* is from one to two tons an acre in a common year. The quality of the hay, if well made, is very fine ; well-affected by every kind of stock ; equally fit for cows and horses.

The RENT thirty shillings to three pounds an acre. The summer-pasturage of a cow forty to fifty shillings.

III. UP-LAND GRASS. In the uninclosed state this land was partly in arable field, partly in upland pasture for cattle and sheep.

The SITUATION hilly, rising somewhat abruptly above the middle-land. The sub-structure a limestone rock, rising in some places up to the soil; in others a seam of redstone intervenes.

The SOIL a loam, of different depths, mixed with redstone, or with limestone rubble. Some parts of this land, where the soil is deep and the redstone stratum two or three feet thick, may rank with the first *corn-land* in these kingdoms.

The HERBAGE which prevails on the old sward of these uplands may be seen in the following list:

| Provincial. | Linnean. | English. |
|-------------|-----------------------------------|------------------------|
| | <i>leontodon hispidum</i> | rough dandelion. |
| | <i>plantago media</i> | middle plantain. |
| | <i>hypochaeris radicata</i> | long-rooted hawk-weed. |
| | <i>leontodon taraxacum</i> | common dandelion. |
| Henpenny | <i>rhinanthus crista-galli</i> | yellow rattle. |
| | <i>chrysanthemum leucanthemum</i> | ox-eye daisy. |

Moun-

Provincial. Linnean. English.

Mountain flax—*linum catharticum*—purging flax.

alchemilla vulgaris—ladies mantle.

polygala vulgaris—milkwort.

festuca duriuscula—hard fescue.

anthoxanthum odoratum—vernal.

White grafs—*bolcus lanatus*—meadow soft-grafs.

avena pubescens—rough oat-grafs.

avena flavescens—yellow oat-grafs.

briza media—trembling grafs.

agrostis canina—brown bent-grafs.

dactylis glomerata—orchard grafs.

poa trivialis—common poe.

Rye-grafs—*lolium perenne*—raygrafs.

Windlestraws—*cynosurus cristatus*—crested dogs-tail.

poa pratensis—meadow poe.

phleum nodosum—bulbous catstail-grafs.

avena elatior—tall oat-grafs.

festuca ovina—sheep's fescue.

juncus campestris—grafs rush.

carex saxatilis?—upland sedge.

plantago lanceolatus—narrow plantain.

Red-clover—*trifolium pratense*—meadow trefoil.

trifolium alpestre—alpine trefoil.

Provincial. Linnean. English.

White clover—*trifolium repens*—creeping trefoil.

Trefoil—*trifolium agrarium*—hop trefoil.

lotus corniculatus—birdsfoot trefoil.

latkyrus pratensis—meadow vetchling.

orobus tuberosus—bulbous pea.

anthyllis vulneraria—ladiesfinger.

galium verum—yellow bedstraw.

campanula rotundifolia—bellflower.

veronica chamædrys—germander speedwell.

euphrasia odontites—red eyebright.

euphrasia officinalis—common eyebright.

valantia cruciata—crosswort.

cerastium vulgatum—common mouse-ear.

betonica officinalis—betony.

prunella vulgaris—self heal.

Cowslipplings—*primula veris*—cowslip.

ranunculus ficaria—pilewort.

Dog-daisies—*bellis perennis*—daisy.

draba verna—whitlow-wort.

thymus serpyllum—wild thyme.

potentilla reptans—creeping cinquefoil.

Horseknobs—*centaurea jacea*—meadow knobweed.

ranun-

Provincial. Linnean. English.

ranunculus acris—common crowfoot.

ranunculus repens—creeping crowfoot.

scabiosa arvensis—field scabious.

scabiosa columbaria—mountain scabious.

Bluecaps—*scabiosa succisa*—meadow scabious.

Yernuts—*bunium bulbocastanum*—earthnut.

achillea millefolium—milfoil.

Seggrums—*senecio jacobæa*—ragwort.

heracleum sphondylium—cowparsnep.

orchis mascula—male orchis.

orchis morio—fool's orchis.

orchis ustulata—upland orchis.

poterium sanguisorba—upland burnet.

origanum vulgare—wild marjoram.

spiræa filipendula—dropwort.

agrimonia eupatoria—agrimony.

valeriana officinalis—medical valerian.

marrubium vulgare—horehound.

sanicula europæa—sanicle.

gentiana centaurium—centaury gentian.

reseda luteola—weld.

crepis tectorum—smooth crepis.

stellaria graminea—meadow stitchwort.

vicia cracca—blue-tufted vetch.

ervum hirsutum—two-seeded tare.

gera-

Provincial. *Linnean.* *English.*

geranium robertianum—stinking cranesbill.

geranium dissectum—jagged cranesbill.

geranium cicutarium—hemlock-leaved cranesbill.

sberardia arvensis—field sberard.

bieraceum pilocella—mouse-ear hawkweed.

aphanes arvensis—parsley pert.

Brakens—*pteris aquilina*—brakes.

Bur-thistle—*carduus lanceolatus*—spear thistle.

carduus nutans—nodding thistle.

carduus eriophorus—woolly-headed thistle.

ferratula arvensis—common thistle.

Red thistle—*carduus palustris*—marsh thistle.

carlina vulgaris—carline thistle.

Rustburn—*ononis arvensis*—restharrow.

Cat-whin—*rosa spinosissima*—burnet rose.

The PRODUCE, in a dry year, little or nothing. On a par of years, half a ton of hay an acre. The ordinary allowance for a summer *pasturage* of a cow, two or three acres.

The RENT ten to thirty shillings.

Land bearing this description is entirely unfit for *perennial ley*. Corn-crops intermixed with

with TEMPORARY LEY are much more suitable to its nature.

The MANAGEMENT OF GRASSLAND in this country now requires to be delineated.

The OBJECTS are *hay* and *pasturage*; each of which will require to be separately considered. But there are some GENERAL MATTERS which are common to them both, and demand a previous consideration. These are,

- | | |
|--------------|--------------|
| 1. Draining, | 4. Weeding, |
| 2. Clearing, | 5. Manuring. |
| 3. Dressing. | |

1, 2. DRAINING, CLEARING. These two operations have been already spoken of sufficiently under the general management of ARABLE LAND, excepting so far as relates to *clearing away ant-hills*.

Here, as in most places, this operation is too much neglected. When practised, the hills are either taken off with a paring-spade, or perhaps a plow, level with the surrounding sward, and carted into hollows, &c. sowing the hillsteads with hay-seeds; or, in one instance, I saw the cap of the hill first taken off thin, and when the body of the hill was removed, the cap was laid upon the hillstead.

But

But this is ineligible. No implement can come upon the surface to dress it; and the caps are liable to be misplaced by cattle and other stock.

The practice of GELDING * has *lately* been introduced. The greatest nicety of the art, I find, lies in clearing away the skirts of the core effectually; so that when the flaps are returned, a rim, rising above the surrounding surface, be not left for the moulding-sledge or other implement to lay hold of.

If this operation be performed in *autumn*, the frosts and rains of winter will temper the cores, and in the first dry weather of spring the moulding-sledge will readily reduce them, and lodge them at the roots of the grass.

If the operation be imperfectly done, or the lumps of core remain stubborn, a heavy roller should be run over the surface before the moulding-sledge be used.

No man who has attended to the quality of the *herbage of ant-hills* needs any argument to convince him of the propriety of bestowing a little attention on the most eligible means of extirpation.

3. DRESS-

* See NORF. ECON. Vol. II. p. 85.

3. DRESSING MEADOWS. The Vale husbandmen are peculiarly assiduous in this department of the management of grassland; which, in the spring of the year, engages much of their attention. The dung and molehills are generally spread repeatedly, and the stones and wood assiduously gathered off. The ground intended for hay is more particularly attended to; but pasture-grounds are paid their share of attention.

“Moulding,” that is spreading dung and molehills, is either done wholly by hand with a “moulding-rake;” namely, a short flat-headed rake with four flat teeth (a tool not uncommon in other Districts); or by the means of a “moulding-sledge” (see IMPLEMENTS), an implement introduced into this country some twenty or thirty years ago.

The first moulding is given the first dry days of spring; generally about Candlemas. Old mole-hills are found to get heavy and firm by lying; and if horse-dung be not broken while moist, it is difficult to be got to pieces*.

The

* I have met with one instance of moulding *pasture grounds* at *Michaelmas*, (when stock is here usually transferred

The soil must become firm before the sledge can be used with propriety. After the surface has been polished by this, it is finally looked over, with the rake; especially round the borders, where the sledge may have left it unfinished.

Hand-moulding is done entirely by women. Wages 6d. a day.

This may be a proper place to mention an opinion which I have met with in this District respecting MOLES.

A man whose examinations are seldom superficial, is clearly of opinion, that moles are useful to the farmer. And under this idea he has not had a mole killed upon his farm during the last twenty years! He believes them to be useful in draining the soil; in communicating air to the roots of plants; in raising

ferred from pasture grounds to after-grass,) a practice which ought to be universally adopted. The surface is then generally open enough to admit the dung which is spread upon it; whereas, in spring, being spread over a surface saturated with water, it is probable that much of it is washed away with heavy rains, or dissipated by frosts. Moulding in early autumn is similar in its effects to the practice of manuring grassland at that season.

raising fresh mould upon grassland ; and in *killing worms* ; which, he conceives, feed upon the roots of grass and corn.

That moles are useful to *cold strong-textured* land, and to *grassland* in general, is probably a fact ; and this may account for the opinion under notice ; which was formed on soil of that description ; or on grassland of a more loamy nature.

But admitting that moles are useful upon cold strong grassland, it does not follow that they likewise are useful on *light, thin-soiled, arable land*. Their mischiefs, here, are too obvious to be over-looked.

With respect to *worms*, too, moles are probably mischievous. No evidence, I apprehend, has ever been produced of their feeding on the roots of vegetables. I speak of the common earth-worm ; not of the grubs of beetles, &c. They are said to draw leaves and other vegetable substances into the ground ; but to what end is only conjectured. It may be in pursuance of the wisest dictates, and for the best of purposes.

I mention this subject, because I believe it is *new* to the public ; and I mention it in this
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cursorily way, because I have not *yet* had opportunity of studying it maturely. It appears to me, however, a subject of the first importance in Rural Economics : for meanly as we are habituated to think of this lowly drudge, the prosperity of the vegetable and animal creation may hinge upon it. Its natural history appears to me a subject of sufficient importance to engage the attention of any man ; let his abilities and pretensions be what they may : and it is a subject which any man of leisure may apply himself to without difficulty.

4. WEEDING GRASSLAND. This department of the grassland management is too little attended to. Beds of the *common thistle* are too frequently suffered to seed in pastures, to the great nuisance of the neighbourhood ; while both meadows and pastures are not unfrequently disgraced with the *dock* ; a weed which requires much less industry to extirpate it.

I met with an instance of a meadow, foul in the extreme with *knobweed*, cured by pasturing it repeatedly with *sheep* in the spring.

Ragwort

Ragwort I have known killed in the same manner.

I likewise met with an instance, here, of a bed of *docks* being destroyed by *swine*; or by *mowing*. The fact was, a large patch of docks as thick as they could grow upon the ground were liable to the bite of swine (some species of which will feed on them with avidity); and what they left was repeatedly mown off; perhaps twice or thrice in a summer, for a succession of years. At length they vanished as by a charm; and were succeeded by a thick sward of the finer grasses.

Perhaps neither the swine nor the fith could be said with strictness to have killed these docks; which, it appears to me, evidently, *died of age*. No vegetable is everlasting. Some are annual, some are biennial, others perennial. But the age; or natural life of perennial *herbs* has not perhaps been attended to. We may however take it for granted, without experience, that all plants which propagate their species by seed alone, may be subdued by persevering to prevent their feeding. All that we want to know from experience is their several *ages*; in or-

der that we may calculate the difference between the expence of heading them from time to time, and that of destroying them at once by eradication.

5. MANURING GRASSLAND. The dung-cart is seldom drawn on to grassland. The quantity of *dung* which is made in the District (see FARMYARD MAN.) is small; and is chiefly applied to arable land; while the collecting of *mud*, *roadstuff*, and other materials, meliorating to grassland, is shamefully neglected.

FODDERING on grass in winter is chiefly depended upon as an equivalent for its exhaustion by *hay*; and *pastured* ground is considered as standing in no need of extraneous assistance.

If a piece of mown ground were to have the *whole* of the crop returned to it in fodder, and in a proper manner, it is probable that such ground might be repeatedly mown without being materially exhausted. But the foddering should certainly be *general* to the whole piece; beginning on one side, and *teatbing* it regularly in the Norfolk manner

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(see NORF. ECON. Art. TURNEPS), until the opposite side be reached: not partially under the hedge, as is generally the case here. The hedges are, no doubt, crept to for shelter; in windy weather, especially, hay will not lie in an exposed place: but certainly the hedges ought to be considered as a resource to fly to in stormy weather; returning to the area of the field whenever the storm abate.

The GOOD EFFECT of foddering on any grassland, *which will bear the treading of stock in winter*, is evident to common observation.

The great danger to land which is inclined to *tenacity*, is that of its being *caught in the drought of spring*; before the sward be relieved by rains or by frosts; which, by tempering the surface, is observed to release the grasses from their confinement in the footsteps of stock. On such land the foddering should not be continued too late in the spring.

On *light-land* grass many advantages arise from this practice. The fodder is laid up, and the manure carried on at a small expence. The contexture of the soil is improved, and moss (the greatest enemy of land of this de-

scription) checked or destroyed by the treading of stock. There can be no doubt that, in some cases, and under proper management, stacking hay in the field, and foddering with it on the land it grew on, may be perfectly eligible. Much depends upon the nature of the land, and much upon whether the given piece of grass, or the arable land in the same occupation, is most in want of melioration.

But advantageous as this management may be in some cases to *light land* grass, a striking instance of the inutility of teathing *stiff land*, in winter, with sheep, occurred in this neighbourhood. A piece of low cold retentive (but well-sheltered) Inghland was foddered upon, during a succession of severe weather, until its surface was black with dung. Great expectations of improvement were formed; but no sensible benefit whatever followed.

From this and other instances of a similar nature, it is more than probable that *teathing* closely-textured land in winter, is equally ineligible as *manuring* it in winter; an impropriety which I am fully convinced of from
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my own practice ; and which all countries are *beginning* to be aware of. I am afraid, however, that the principal part of the little manure which is set upon grassland in this District, is carried on during the frosts of winter ; the worst time invention can devise.

Lime is, in the general idea of the country, rather injurious than beneficial to grassland. Evidences are produced against it ; but they are not conclusive : the trials which are said to have been made were on cold retentive soils ; the least likely, perhaps, to be improved by lime. To corn-crops lime is most beneficial on dry warm soils ; and some recent experience here shews, that on such soils lime is beneficial to grass.

A quantity of lime having been scattered accidentally on sward, it was observed to injure the herbage considerably for the first three or four years. This of course corroborated the opinion of its being injurious to grass. But in a few years more this incidental patch became much superior to the rest of the piece it lies in ; and has now continued to be so for some years. The soil a middle loam, on a rocky substratum.

This led to an experiment with a smaller quantity; namely, four chaldron an acre; on a piece of declining mossy sward, on a burning sand, in an upland situation.

This experiment was made last autumn. The present state of it is striking (Sept. 1787). The entire countenance of the land is changed: the sward has acquired a dark-green healthy colour; and the moss has already most of it disappeared: while the remainder of the piece (the whole eaten with sheep) is covered with a fleece of moss intermixed with parched straw-coloured herbage.

Thus far, and as far as one experiment will go, this under notice is decisively in favour of lime being beneficial to a scorching upland soil. For reviving the productiveness of old sheep-walks and rabbit-warrens lime may, perhaps, be found a most profitable manure.

A remarkable incident occurs this year (1787) near Pickering. Part of the common has been, I believe, time immemorial, in use as a whitening-ground—provincially, “bleaching-greens.”—The soil, drift sand left by a brook which frequently overflows those greens; the subsoil gravel; left in all
pro-

probability by the brook in shifting its channel from time to time. Nevertheless, such was the *superficial appearance* of this valley while it was used as a whitening-ground, that the Commissioners under the Inclosure valued the land (last summer a dry season) at forty to fifty shillings rent an acre. But this year, the bleaching being discontinued, it has turned out not worth fifty-pence an acre; notwithstanding the uncommon power which vegetation has this year every where else manifested *.

The parts where the webbs have usually lain, are evident to common observation: scarcely a blade of grass has this year shewn itself upon them. Even the sedges and other palustrean weeds, which attempt to grow, are not able to hide the dead-looking sand among which they are rooted. The soil, naturally weak, is at present evidently exhausted. But query, how has this exhaustion been effected? By the *lime* which has been used in bleaching? Or by the *watering* which it has here-

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tofore

* A striking evidence this of the caution requisite to be used by *strangers* in estimating the value of land.

tofore constantly had through the summer? Or by the *warmth of the webbs*; which, acting as a gardener's frame, has induced the soil to exert itself beyond its natural strength? The effect is well ascertained; but evident and interesting as it is, it appears to me difficult to be accounted for satisfactorily.

Having thus passed through the *general* management of grassland, it will now be proper to particularize,

1. The Management of Meadows.
2. The Management of Pastures.

I. MEADOWS. All old grassland which is *mown* is here called "MEADOW;" whether its situation be low or high, dry or moist. It is merely a term in contradistinction to PASTURE, or "summer-eaten" ground; which name it may take the ensuing year; it being a pretty common practice to mow and summer-eat alternately.

This, however, is far from being a general practice; the same lands will be mown, and others will be used as cow-pasture, for several years successively. But of the land which is described above as midland grass,

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an alternacy, though not perhaps annual and regular, generally takes place.

In describing the MANAGEMENT OF MEADOWLAND, a fourfold division of the subject will be requisite.

1. Spring Management ;
2. Haying ;
3. After-grass ;
4. Winter Management.

I. SPRING MANAGEMENT OF MEADOWS.
The general practice is to “eat” them until *Old May-day* ; when the stock is transferred to the pasture-grounds-----and the meadows finally shut up for hay.

In this climature the practice is injudicious. It throws hay-time too backward in a common year. And if dry weather set in early, the ground, having no covering, is parched with drought, and the crop of *hay*, *perhaps*, thereby lessened.

In Surrey, and round the metropolis, grounds intended to be mown are scrupulously freed from stock early in the spring ; not a spring shoot is cropped. This is the opposite extreme ; and, if the land will bear stock, is also improper. Some valuable
spring-

spring-feed is lost; the frosts destroying that which would be of service to stock.

Land may in general be eaten until OLD LADY-DAY or the MIDDLE OF APRIL, without injuring the crop of hay. Early weeds, and the ranker grasses, are choaked, by which means the better bottom grasses are suffered to rise, and to ripen with them.

2. HAYING. To give a minutial account of this department of the grassland management, it will be requisite to consider separately the following subdivisions :

- | | |
|------------|-----------------|
| 1. Mowing; | 3. Laying up; |
| 2. Making; | 4. Expenditure. |

1. *Mowing.* This is done chiefly by the "day's mowing," which is an inaccurate acre; sometimes more, but generally less than a statute acre; old inclosed meadows having been reckoned from time immemorial, so many "day mowings;" and whether they are in reality a greater or less number of acres, they are considered as so many days' works.

The wages for mowing, one shilling to eighteen-pence a day and board. Little or no mowing is done by the acre. A man seldom

feldom mows more than his day-mowing; which, if he be a good hand, he performs in a few hours, in the morning and evening; generally lying by in the middle of the day.

The Yorkshire mowers labour hard during the short hours they work: their fithes are of uncommon length, and they take their swath of unusual width; seldom less than three yards; some of them ten or eleven feet wide; and, what is I believe peculiar to them, they invariably “keep stroke;” that is, all strike together as one man: a practice which is at least pleasing to look at.

2. *Making.* All countries, I find, abound in bad haymakers; and some are destitute of good ones. The country under survey may be said to be above par; and that is as much as can be said of it. Quantities of hay are annually wasted, and still greater quantities unnecessarily injured, through bad management. It is seldom tedded sufficiently; is frequently exposed all night abroad in catching weather; and in such weather is too often carried before it be dry.

A fin-

A singular expedient is here practised to get it (as it is intended) out of harm's way. This is to put it into "pikes," or stacklets of about a load each—before it be fit to be put into stack; and, too frequently, before it be fit to be put into large cocks. This is considered as a middle stage; in which it is to take a partial heat, and become prepared for the stack.

If hay be free from water-wet, but yet too full of sap to be trusted in stack, "piking" it may have its use. But it is more generally made use of as a slovenly expedient for getting hay out of hand in a tedious season. In this case, however, it is mostly mischievous. I have seen these pikes, when opened out to be carried to the stack, white with mould, black with rottenness, and of every intermediate colour, excepting that which alone is desirable. But this *good old way* seems to be declining.

In the best practice of the District, the grass, in fine weather, is tedded after the mowers; or, in showery weather, as soon as a fair opportunity offers. In the evening, unless due confidence can be placed in the weather,

weather, it is put up into cocklets—provincially, “hipples;”—made in different ways; some being set up hollow with the foot and the head of the rake; others in the common way with forks. As the hay has advanced in dryness, the hipples are increased in size.

When a fair opportunity offers, and the grass is perfectly dry, the hipples are “sundered;” that is, broken out into beds in the usual manner; turned; and again got up into cocklets, of such size as the state of dryness requires. When sufficiently dry, the hay is made into well-sized cocks; namely, about eight or ten to the load.

When the crop is intended to be stacked on the piece it grew on, the first-made part generally stands in these cocks until the whole, or the principal part of the remainder, be ready for the stack; which, by this means, is never exposed abroad in its first stages: a circumstance, however, which is too commonly suffered by less judicious hay-farmers.

3. *Laying up hay.* The most prevalent practice is to stack it in the field; either for the purpose of foddering it on the ground,
or

or to be fetched home in frosty weather, or when wanted. Much, however, is carried to the homestead at hay-time; some to be stacked; others to be housed; a practice which, when room can conveniently be had, seems to be in good estimation. It is at once got out of the way of the weather, and probably into the place in which it will be wanted: the mustiness of housed hay, which is talked of in some places, is not perceived in this.

The practice of STACKING HAY IN THE FIELD adds much to the ease and dispatch of hay-time. If the stack be placed in the center of the ground, a considerable part of the hay may be collected, without the trouble of loading it on to a carriage.

If it be in large cocks, it is sometimes drawn to the stack with one horse, and a cart-rope put under the skirts of the cock on the sides, and above the skirts on the back part; giving the bend of the rope sufficient hold of the hay, to prevent its being drawn from under the cock. The two ends of the rope pass to a pair of hames; being made fast on one side, and kept in its place with a peg on the

the other; the cock arrived at the stack, and the peg drawn, the rope is disengaged.

If the hay be abroad it is rowed in the usual way, and is sometimes drawn together with a long pole (six or eight feet long), with a rope passing from each end of it to the hames; a man standing or pressing upon the pole, to keep it down to its work, and make it clear the ground as it goes. This however, though simple, is a difficult business. More complex implements of various constructions have therefore been contrived for this purpose.

These implements are also used in cocking; and, when the quantity of dry hay is great, and hands scarce, it eases and expedites the business very considerably. For, in this case, the main burden of the hay is drawn together by the team, the rakers having only the bared ground to rake over; following the implement, and drawing the rakings to the part to be cleared by the next sweep of the implement; beginning on one side of the piece, and proceeding in this regular and expeditious manner to the other; leaving the
hay

hay in large rows, easily to be cocked; dragged to the stack; or loaded; as occasion may require. This expedient, however, is far from being in general practice.

When the ground near the stack is cleared, and the stack has risen too high to be conveniently forked on to from the ground, the outskirts of the field are drawn together in carriages.

In the best practice of the District, the stack, if not very large (which field-stacks seldom are), is never begun upon until a sufficiency of hay be dry to get it above the eaves the first day. If the whole be ready, the middle of the stack is rounded up, and the remainder set in tall "pikes" by the side of it, ready to be laid on the first fine day after the stem be sufficiently settled. This appears to me to be bringing the business of laying up hay as near perfection as the nature of it will admit.

Field-stacks are, I believe invariably, made round. The favourite form at present seems to be that of an *egg*; a form, perhaps, of all others the most beautiful, but by no means the most convenient *.

* In CLEVELAND the opposite extreme prevails. The *turnep* is there the archetype. If hay-stacks be made

When the hay has done heating, the stack is finally topt up, its roof adjusted and raked, and its top *capd* with thatch; the principal part of the roof being left naked.

In a country where thatching the entire roof is the established custom, this would appear negligent management. In this country, to bestow thatch and thatching upon the whole would be deemed a wasteful extravagant custom. It would be difficult to say with certainty which is the better practice. Either of them is good, if properly executed.

Field stacks are fenced with large hurdles, —provincially, “stack-bars”—resembling the gate-hurdles of some Districts, and the cattle-hurdles of others. Being placed in a ring, and united together with pins passing through the heads, they form an arch, and become a simple and sufficient fence against every kind of stock.

4. *Expenditure of hay.* There is no regular *market* for hay in the District. It is seldom *sold* but in times of scarcity. It is

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mostly

made *round*, a form between the egg and the turnep is preferable to either extreme; but, in my mind, a *barn* is the best model for a hay-stack.

mostly *consumed* on the premises : chiefly perhaps in the house, but partly in the field ; a practice which has already been spoken of.

3. AFTERGRASS. In some places cattle are turned into meadows as soon as the crop is out of them. This is fouling the ground without any advantage to the cattle, which will not, cannot, eat the *stubble* of mown ground.

In this country, the opposite extreme of management is too prevalent. AFTERGRASS —provincially, “fog” —is scarcely ever broken till *after Michaelmas* ; is sometimes hoarded up till near *Martinmas* before it be turned into. In the latter case, half of it, perhaps, is generally wasted. Whether the weather prove wet or frosty, one of which may reasonably be expected at that time of the year, cattle destroy as much long overgrown aftergrass with their feet as with their mouths. Wherever they tread in wet weather, the grass is fouled ; wherever they step when frost is on the ground, the grass they tread on is entirely destroyed.

It is a matter of some astonishment that no country has yet adopted AN ECONOMICAL EXPENDITURE OF AFTERGRASS. I have met with some faint attempts in the practice of individuals in different places; but nothing of a regular confirmed established practice.

There is one leading principle of management which is easy to be observed, and by which alone perhaps half the present waste might be avoided. This is the self-evident and simple one of never suffering cattle to remain at *nights* on aftergrass, nor to return them in the morning *while frost remains on the ground*.

In strictness, they ought never to be suffered *to lie down among it*, but should be removed as soon as their appetites are palled. Even this, when the expenditure is on cows, is not difficult. But fatting cattle may perhaps require more indulgence. These, however, might, without injury, be let out in the evening into an adjoining stubble or pasture-ground, and be suffered to return in the morning, with very little extraordinary attention or trouble. Cows might be folded in a yard, or kept in the house, or in the field, as circumstances might require.

The expenditure of aftergrafs in this country is principally on milked cows; some on dry fatting cows, and some on oxen thrown up from work in the fpring and finished with aftergrafs.

GEN. OBSERV. ON AFTERGRASS. Grafs which has been trampled under foot, in the manner described above, neceffarily remains in winter an encumbrance to the furface. If the ground be foddered upon, fome of it will of courfe be worked off by cattle; and horfes will eat a ftill greater fhare of it. Still, however, the fward will be ragged in the fpring; a thing which ought to be avoided. In the early part of fpring, aftergrafs ought to be level; that is, either *entirely bare*, or covered with a *fufficient even bite* of unfoiled aftergrafs, or winter-freed pafturnage.

Two of the ableft rural eonomifts of thefe kingdoms (one of them of Lancashire, the other of Leicefterfhire) make a point of faving autumnal grafs for fpring-feed; and they are probably right when they affert that it is the moft certain, and on the whole the beft, fpring-feed at prefent known.

On thefe principles the right management of aftergrafs is evident. The forwardeft
ought

ought to be broken sufficiently early to be eaten, without waste, before winter set in; and the latest, that is to say, the shortest, should be shut up for spring-feed. If aftergrafs be too long and grossy it is apt to lodge, and rot upon the ground in winter. Therefore on rich land it ought to be more or less fed before Michaelmas; and then, of a due length, be shut up for the winter.

II. PASTURES. The management of pasture-grounds requires to be subdivided into

1. Spring Management.
2. Stocking.
3. Summer Management.

I. SPRING MANAGEMENT. In the ordinary practice of the District pastures are shut up in winter, or early in the spring, and freed from stock until *Old Mayday*.

This appears to me to be bad management. At Old Mayday, in a common year, and on an ordinary soil, there is a sufficient bite over *every part of the surface*. Cattle of course *choose the better herbage*. They have no inducement to crop the *weeds* and *coarser grasses*, which they suffer to run up to *seed*,

thereby in the instant encumbering the surface, and in the consequence increasing their species; and of course *lessening* the proportion of NUTRITIOUS HERBAGE.

Even supposing the sward to be perfectly free from weeds and coarse grasses, it is bad management to suffer stock (STORE-STOCK) to be turned upon a full bite. They cannot, if duly stocked, keep the whole of it under. Much of it will inevitably run up to seed, forming tufts and uneaten patches, which (if not removed with the *fithe*) remain during the summer as useless to the grazier, as if they were not included within the limits of his pastures. They are so much *waste ground*. The quantity of grazing surface, or, in other words, the *size of the pasture*, is lessened in *proportion to the quantity of stale herbage*.

On the contrary, if stock be admitted into pastures while the *early weeds* are yet in a *tender state*, and before the surface be covered with *better herbage*, every weed will be cropped, and every part be *equally eaten*. Even *rushes* when they first shoot are eaten freely by cattle and horses; especially the latter. The *cowparsnep*, *ragwort*, and other gross
early

early plants are, on their first emerſion, devoured greedily by cattle and ſheep.

But changing *weeds into nutriment*, and increaſing the *quantity of paſturing - ſurface*, are not the only advantages ariſing from breaking paſtures early with ſtore-cattle. The cattle themſelves are benefited, by being removed by degrees from dry meat to graſs, and thereby, in all human probability, preſerved from many diſorders which cattle are liable to on their firſt being turned out to graſs in the ſpring.

It will be ſaid, that under this management paſture-grounds require to be ſtocked *thinner* than in the uſual practice. For a few days immediately after Mayday, the paſture will be comparatively *ſhort* (a circumſtance, perhaps, favourable to beaſts when firſt turned out wholly to graſs), but afterwards the advantage will be evidently in favour of early breaking ; inaſmuch as the quantity of ſurface is thereby encreaſed. It is therefore demonſtrable, that under this management paſtures may be ſtocked *thicker* than in the common practice.

FATTING CATTLE which are forward in flesh, and are intended to be *finished with grass*, may require a full bite at first turning out. But for COWS, WORKING-OXEN, REARING CATTLE, and lean cattle intended to be *fatted on grass*, a full bite at the first turning out is not requisite.

Another objection which may be made to early grazing is, that of laying the land open to the drought of spring. This, too, is in great measure, when applied to *pasturage*, an ill-grounded apprehension. It is notorious to common observation, that cows milk and cattle in general thrive beyond expectation in *droughty weather*. It is not the *length of grass*, but the *quantity of nourishment* it contains, which makes cattle pay for their pasturage. In dry seasons medicinal waters are strongly impregnated, and fruit exposed to the sun in such seasons, is sweeter and more highly flavoured than it is in a moist season or a shady situation; but the distillers of simple-waters are the best judges of the effects of seasons on herbage.

The richness of vegetable productions appears to be in proportion to the quantity of heat in the
imme-

immediate sphere of their vegetation. Thus the richness of fruit is increased by the reflection of the wall ; and it strikes me that the richness of grass is increased by the reflection of the soil. Long grass shades the soil and destroys the reflection. The shorter the grass the stronger the reflection, and, consequently, the richer the herbage.

But the longer the grass, the sooner the cattle satisfy their hunger, and lie down to rest. A medium therefore is observable. The due length depends upon the nature of the stock, the nature of the soil, and the nature of the season. Rich grass goes farther than that which is watery and weak. A good grazier looks to the case of his cattle, rather than to the length of their pasture.

These observations are drawn from my own experience, as well as from the practice of one man in this District ; who, by early stocking, keeps not only his rough pastures, but even his yards in a great measure level and free from encumbrances.

OLD LADYDAY to the MIDDLE of APRIL,
according to the progress of spring, appears
to

to me at present as the best time for *shutting up mowing-grounds and opening pastures.*

2. STOCKING PASTURES. The *species* and the *quantity* require to be separately considered.

No settled rules with respect to the *mixture of species* are here observed. It is generally understood that *horses* and *cattle* intermixed will eat grass cleaner than either species will alone ; not so much from their separately affecting different grasses, as from the circumstance of both species disliking to feed near their own dung,

Horses, it is true, appear partial to particular patches of sward ; but, on close examination, I have never been able to discover any peculiarity in the *soil* or the *herbage* of these barely-eaten spots ; which are, I apprehend, eaten to the quick accidentally, and are afterwards kept down through their *peculiar sweetness*, owing to the *peculiar shortness of the herbage*. Hares and rabbits in the neighbourhood of kept covers, keep down patches of barley or other corn in a similar manner, and through similar motives.

Besides this unfair manner of feeding, the HORSE is disliked in pastures, on account of the
the

the worthlessness of the dung of horses at grass.

This, when the superior value of their dung in the stable is considered, appears somewhat paradoxical. The idea, however, is not confined to this District, nor to this Island; it prevails, I am well informed, in America, and perhaps more or less in every place where husbandmen observe superficially,

The idea has, no doubt, some foundation. The dung of horses dropped on grass in summer soon undergoes a change. Its substance is presently scooped out by insects; nothing but a porous bundle of undigested vegetable matter being left. If insects not only eat horse-dung, but fly away with it out of the field, it is in reality lost to that particular field; but if, what is most likely, they drop it again near the place where it was taken up, and at length find a grave for their own bodies among the grass, the occupier of the land sustains no loss.

SHEEP, I believe, are seldom mixed either with cows or fatting-cattle. They eat less fair than horses, which stick to particular patches;

patches; while sheep run over and nibble out the choicest morsels of the entire piece. They are generally kept alone, except on commons, and are on *this* side of the Vale properly confined to the uplands, the most natural pasture of sheep.

With regard to the aggregate QUANTITY OF STOCK suitable to a *given piece of ground*, husbandmen here, as in other places, differ in their opinions. Extremes are mostly injudicious. The impropriety of stocking too *thin* has already been shewn; but laying on stock too *thick* is a still greater impropriety. Broken grass may be mown for hay; but the evils of over-stocking are not easily repaired: stock once checked do not readily regain a thriving habit. I have known (not in this District) the entire produce of the land thrown away by over-stocking: it is an error which novitiate farmers too frequently fall into. The middle way ought to be attentively sought after. Nothing but experience on the given ground can point it out. In obtaining this experience it is always prudent to begin on the safe side; or, in other words, to understock rather than overstock the first year.

3. SUMMER MANAGEMENT OF PASTURES.

In this department of the grassland management, the District under survey is deficient. No *shifting* of stock: no head stock and *followers*: nor *sweeping* of pastures with the *fithe*. In the ordinary practice of the country, stock are turned into pasture-grounds at Mayday, and there remain impounded until Michaelmas; or until harvest be in, when the head stock are transferred to the mowing grounds; the ordinary to the stubbles; to partake of the "average:" a provincial term for the eatage of arable land after harvest; a term probably originating in the ancient common-field management.

I have already intimated, that it is not my intention to make the present a didactic work. Nevertheless, where I find what appears to me cause of censure, it may be right to mention what I think would be a means of doing it away.

The grassland management is no longer a subject which is new to me. I have now had a considerable share of experience in my own practice, and have also had opportunities of observing on a large scale the practice of others

others in different and distant Districts. I will therefore here give, in as few words as possible, a *sketch* of my present ideas respecting the proper management of SUMMER PASTURES.

Much depends on SITUATION, and much on WATER. There are cases (many of them in this District) in which the stock are through necessity confined during the summer in *one* grass-pound. Cases like these can only be lamented, not remedied. There are others which will admit of only *two* divisions; that is, of *one shift*: a predicament infinitely preferable to the first; but not altogether desirable.

In all cases, where fattening cattle or dairy cows make a part of the stock, and where situation, soil, and water will permit, every suite of grazing-grounds ought, in my idea, to consist of THREE COMPARTMENTS. One for head stock (as cows or fattening cattle), one for followers (as rearing or other lean stock), and the third to be shut up to freshen for the leading stock.

If at the time of shifting the followers, there be *much feedy herbage* left upon the ground,

ground, it ought to remain until they be shifted; and to be MOWN AS HAY during the recesses.

But if, at that time, a *few weeds*, and a *little seedy herbage* only be left, they ought to be SWEEPED down with the sithe a few days before the removal of the lean stock; which will not fail, in this case, to lick up even the sharpest thistles, while they are in the soft flaccid state which the sithe in a short time reduces them to.

Finally, I am clearly of opinion, that let the pasture consist of one, two, or more compartments, not a weed ought to *seed*, nor a tuft of *stale grass* be suffered to stand in a pasture-ground; which ought at least once during the summer to be LEVELLED WITH THE SITHE; thus, at a small expence, converting WEEDS INTO NUTRIMENT, and WASTE GROUND INTO AFTERGRASS.

H O R S E S.

H O R S E S.

YORKSHIRE has long been celebrated for its horses. Fitzherbert, who wrote two hundred and fifty years ago, mentions his going to Rippon fair to buy colts.

The influence of *climature* on the *constitution*, or *changeable* part of the nature of animals, is a matter difficult to be demonstrated. There are men who deny it.—Nevertheless, strong evidences of its existence may be drawn from the animal under consideration.

No man has yet been able to breed Arabian horses in England; English horses in France or Germany; nor Yorkshire horses in any other District of England. Some good horses, no doubt, are bred every year in different parts of the kingdom; but they are few in proportion to the number of bad ones bred in those parts.

In

In Norfolk, the breeding of saddle-horses has been repeatedly attempted without success. Yorkshire stallions have been, and still are sent into Norfolk in the covering-season. The *foals* may be handsome, *but they lose their form as they grow up.*

On the contrary, in Yorkshire, let the foal when dropt be ever so unpromising, it will, if any true blood circulate in its veins, acquire fashion, strength, and activity *with its growth.*

This in my mind accounts fully for the superiority of Yorkshire-bred horses; and is a strong evidence that *air, water, soil, or herbage,* has an influence on the constitution or changeable nature of animals.

The District more immediately under survey may, perhaps, be considered as the first in the county for the breeding of horses. Nevertheless, it cannot even here be called a universal practice. Men are led into it by accident or caprice.

It would be difficult to ascertain the exact number annually bred. The Vale, the Wolds, and Holdernefs, probably employ a hundred stallions. One hundred mares are considered

as the full complement for one horse. Some of them, perhaps, do not get fifty. On this calculation, there are from five to ten thousand horses bred between the Eastern Morelands and the Humber*.

It will now be necessary to consider separately,

1. The breed.
2. The method of breeding.
3. The method of making-up.
4. The markets.
5. The management of worked horses in this District.

I. BREED. Thirty years ago, STRONG SADDLE-HORSES, fit for the road only, were the principal breed of the Vale.

During the last twenty years, some capital HUNTERS have been bred in it. This change was principally effected by one horse; JALAP; a full-bred horse; whose pedigree and performances are well known upon the turf.

He

* This calculation, however, is grounded on little more than supposition. It would be difficult to ascertain the exact number of stallions kept in so wide a District.

He is still living; and, what is remarkable, last season, at the age of thirty, covered several mares. His leap five guineas each, for blood mares; two guineas for "Chapmen's" mares*.

But notwithstanding the credit which the Vale has justly acquired of late by its hunters, the breed is at present changing to fashionable COACH-HORSES; namely, tall, strong, oversized hunters. The breed, therefore, may be said to have increased in size, rather than to have undergone a change. In 1783, the stallion-shows exhibited beautiful groups of animals, nimble as the greyhound, and spirited as the lion. This year (1787) the shows were comparatively flat and spiritless: a mere parade of troopers.

There may be several reasons for the alteration which is taking place in the breed of horses in the Vale.—The *Jalopian* breed has degenerated; very few of the sons of this celebrated horse have been good stock-getters. Another reason, and perhaps a better,

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is

* He died in December 1787, since this article was written.

is the unfitness of high-bred hunters for beasts of burden and draught. Not only brood mares, but growing horses, are used in husbandry. The operation of plowing with two horses requires strength. Slender horses are unfit for it; but a three or four-year old coach-horse may be occasionally used; and, in cases of deformity or lameness, may be continued as a farm-horse. If to this be added, the extravagant prices which this description of coach-horses have recently borne, the Vale farmers may be right in propagating the breed *.

Be this as it may, they are most assuredly wrong, when they give encouragement to the *Fen Breed*, the "*Howden mack*" of BLACK CART-HORSES, which I am sorry to see worming their way into the Vale. The breed of grey rats, with which this Island has of late years been over-run, are not a greater pest in it than the breed of black fen horses: at least white cattle remain scarce, as they are at present; and while the flesh of horses remains

* The WOLDS and HOLDERNESS have been longer in the practice of breeding coach-horses.

mains to be rejected as an article of human food.

Let the Vale-farmers continue to plow with coach-horses, and use oxen in carriage: a breed of horses better calculated for eating than working, and whose main tendency is to render their drivers as sluggish as themselves, are ill-adapted to the present rents of the Vale. Norfolk has already experienced the evil consequences of encouraging that breed; and I hope this country will not suffer by the same indiscretion. It is laughable enough to see a slender half-bred mare, who perhaps, a few years ago, received the embraces of *Jalap* or his offspring, bending under the weight of a cumbrous animal, whose very legs, in all their admired roughness, are nearly equal in size to the body of her former gallant. No wonder that monsters, having not their likeness in nature, should be the produce of such unnatural amours.

II. BREEDING HORSES. From what has been said respecting the superiority of Yorkshire horses, it will, no doubt, be expected that

great attention is paid to breeding; and that the mysteries of it will be disclosed; while, perhaps, others have conceived that their superiority is more owing to the art of breeding than to the geniality of climature. I should be sorry if truth oblige me to discover the misjudgment of my readers; and feel myself awkwardly circumstanced in being under the necessity of disclosing the misconduct of my countrymen.

In different parts of the kingdom the breeding of *race-horses* is reduced almost to science. In the Midland counties, the breeding of *cart-horses* is attended to with the same assiduity as that which has of late years been bestowed on cattle and sheep; while the breeding of *saddle-horses*, *bunters*, and *coach-horses*, is almost entirely neglected; is left almost wholly to chance: even in Yorkshire! I mean as to FEMALES. A breeder, here, would not give five guineas for the best brood mare in the kingdom;—unless she could draw, or carry him occasionally to market; nor a guinea extraordinary for one which would do both. He would sooner breed from a rip which he happens to have
upon

upon his premises; though not worth a month's keep.

But how absurd. The price of the leap, the keep of the mare, and the care and keep of her progeny, from the time they drop to the time of sale, is the same, whether they be sold from ten to fifteen, or from forty to fifty pounds each.

Almost every thing depends upon the MARE. There is an instance, in this neighbourhood, of the offspring of one mare being sold to *dealers* for four or five hundred pounds. What are a few guineas in the first purchase of a good mare? and what are a few days plowing, or a few rides to market, compared with the difference between a race of good and of ordinary horses?

It appears to me evidently, that much remains to be done in this department of Rural Economics. Good STALLIONS may be had for money; and the different hunts in the south of England will, so long as they remain, be a source of MARES most suitable to the purpose of breeding CAPITAL HUNTERS. Mares lamed or stiffened by severe exercise, and improper treatment, are generally to be

bought in the neighbourhood of these hunts, at moderate prices. And mares fit for the breeding of COACH-HORSES are to be met with in every county.

The present prices given for hunters and coach-horses; and more especially the declension of the breeding of the former; are incitements sufficient to induce men of spirit to make an attempt. Nothing appears to me to be wanting, but a BAKEWELL to take the lead.

While the nation remains in its present state of refinement, horses for the *road* and the *field* are in a degree necessary; but *racers* and *cart-horses* might, with less inconveniency, be dispensed with.

The King's Plates have probably had their use in improving the English horse in activity and fleetness. But the original intention of them has long ago been answered: RACE-HORSES are now fit for the purpose of *gamesters* only. They are in general drawn much too fine for *use*. Therefore to continue these prizes will be distributing the nation's money toward the worst of purposes: the encouragement

ragement of gaming; and the injury of the breed of English horses. The broad-loined, deep-chested, old English hunter is giving place to the lank feeble racer. If it should be still thought *proper* to continue the King's Plates, it would certainly be wise to raise the limited weight to twelve stone.

With respect to CART-HORSES,—if extending the saddle-horse tax to farm-horses in general would lessen their number, and increase that of working oxen, it would be political to extend it without loss of time.

Under the present head it may be proper to register an idea which I have met with in this country; and which, evident as it may seem, never occurred to me before, either in theory or practice.

It is a fact, well-established in the common practice of this District, that spayed heifers *work better*, and have in general *more wind*, than oxen; and it is not doubted that SPAYED MARES would have an equal preference to *geldings*.

I do not, however, find that the experiment has ever been tried. The reason held out against it, though formidable at first
fight,

sight, proves a mere shadow on examination. The spaying of fillies would undoubtedly spoil them for *brood-mares*. But does not the gelding of a colt spoil him for a *stallion*? What breeder, when his mares foal, wishes for fillies? and what dealer would not willingly give half-a-crown a piece to have his mares changed into geldings? or perhaps into animals superior to geldings?

In the spring of the year *open mares* are faint and troublesome. Nothing seems to be wanted but a safe cutter and a man of spirit to set him to work, to bring the spaying of female foals into common practice.

It does not follow that, because a part of the female foals should be cut, there would not be open mares to breed from, any more than it does, that because some heifers are spayed for the yoke, or for fatting, there are not cows enow sufficient for the purposes of breeding and the dairy.

I do not mean to *recommend* a practice of which I have had no experience; but if the experiment has not been tried, it strikes me forcibly that it is worth the trial;—and
that

that it is more than time it were set about.

III. MAKING-UP HORSES. The *age* at which young horses are here made up for a market is four or five years old.

Some breeders *make-up* their own horses; others only *back* them, and perhaps use them gently in *barneys*; selling them at full age to PROFESSIONAL DEALERS; who, with arts best known to themselves, make them fat and fine-skinned—set up their tails—abridge occasionally the number of their teeth,—and teach them their stable exercise.

Some are bought up at two or three years old by HORSE-DEALING FARMERS; who *grow* them upon good land; break them into the saddle, at least; and finally make them up, *according to art*, for market.

One farmer in the Vale is said to make-up an hundred annually. And one dealer at Malton is said to have sometimes two or three hundred horses in his stables at once.

Making-up horses upon a FARM, by a man who is a judge, is a most profitable branch of husbandry. Oats, hay, and straw, find a market on the spot; and *town* manure is
procured.

procured in quantity without the expence of fetching.

IV. MARKETS FOR HORSES. *Malton* has the only HORSE-SHOW in this District. It is held in the spring of the year, and continues for the week ; namely, the week before Palm-Sunday.

At this fair great number of made-up horses are sold. They begin to go in on Monday. Tuesday and Wednesday are the principal days for good horses. Thursday and Friday generally exhibit an inferior sort, And Saturday, which is likewise a great cattle fair, is principally a stallion-show ; and a fair for refuse-horses ; which on this day are shewn in the open market.

During the week-days, the horses are shewn in stables, fitted up at the inns, and in private yards, for the purpose ; being only led out occasionally, at the desire of the chapman.

The hours of show are the morning before breakfast, the forenoon, and again in the evening ; the stables being universally shut during meal-times.

The

The show consists of well-bred hunters, inferior saddle-horses, and light coach-horses; most of them being bred in the Vale, on the Wolds, or in Holderness; some few from Cleveland and the upper part of the Vale of York.

The purchasers are the *London dealers* and *foreigners*, especially of FRANCE and PRUSSIA.

In 1783, the French markets being then recently opened by the peace, several French dealers were at this show. The favourite colours, yellow bays, greys, and chesnuts. Brown, the Englishman's favourite colour, is disliked by foreigners.

But of late years the principal part of the first-rate horses have been bought by the dealers, foreign and domestic, *previous to the show*, at the houses of the country dealers or the breeders.

The prices various: from fifteen to fifty pounds includes the majority of the made-up horses sold at Malton-show. They are led in strings to London, or shipped off at Hull for foreign markets. In 1783, a vessel laden with horses, bought at this show and in the neighbourhood, was lost off the coast of Yorkshire.

V. TREAT-

V. TREATMENT OF WORKED HORSES. In a District where the working of oxen has been for many ages the established practice, it cannot be expected that any very accurate management of DRAUGHT-HORSES can have taken place. But in a country which has always been considered as the source of good HUNTERS, and the school of good horsemanship; it may be reasonably supposed that a superiority of management prevails.

This, however, is not; from what I have seen, the case. The only striking feature of management which has caught my notice is, that of turning hunters and other hard-riden horses out into the field in the day-time in winter; cold or warm, and sometimes wet or dry : a practice which has been cried up by many great horsemen, and is to be met with in every part of the kingdom; though nowhere so prevalently, perhaps, as in this country.

It has always struck me as a bad practice. Nevertheless, in compliance with the custom of the place I was in, I let a mare, which I rode into the country in 1782,
run

run out to grafs on leifure-days, and lie in the houfe at nights. The confequence was unfavourable, and fufficiently ftriking to induce me to minute the circumftances at the clofe of the occurrence,

As the fubject appears to be of confiderable importance, I will here copy the Minute.

“ 1783, *March 11*. There are perhaps few horfes which will bear to be hunted one day and turned out to grafs the next. My brother’s practice is to let his horfes run at grafs in the middle of the day throughout winter. In conformity with this plan, mine was turned out in the day-time whenever I did not want to ufe her. On my arrival here in November laft, though I had rode her a journey of two hundred miles, ſhe was as fat as a mole, and her carcafe round as a barrel. In the early part of winter I rode her a good deal, and ſhewed her the hounds generally once a-week. With this exerciſe I was not furprized at her ſhrinking. But having more lately given her eaſe in order that ſhe might recover her fleſh and ſpirits, without finding any alteration, I had good reaſon to think
that

that it was not altogether the work; but the treatment, which kept her down; for with all the indulgence I could give her, her sides, ten days ago, were clapped together, and her hide stuck as close to her ribs as if it had been glued to them. Her appetite for dry meat at least was gone. She would let her corn lie in the manger untouched; though for the time I have had her—fix years—she has always been a remarkable good feeder. I had some blood taken from her, but she still remained the same. Suspecting that hanging after the grass was the only cause of her ill-thriving, she has for the last ten days been kept entirely in the house. Her skin is already loose and filky, and she calls for corn every time the stable-door is opened. The other day she wanted spurs. Now she is all spirits again. — — turned out a mare, which he had hunted the day before, to grass, on a cold day. She got a violent cold; was seized of her limbs; and it has been with great difficulty he has saved her. — — began to turn out a valuable mare which he hunted occasionally; but finding that she refused her dry meat, he discontinued it; and now finds that she

she has taken to her hay and corn again. My brother's horse, used to it as he has been from his infancy, and pampered as he constantly is, looks more like a common hack than a hunter.

“ There are two reasons why a horse which is subjected to violent exercise should not be exposed at grass, in severe weather. It takes them off their dry meat; and horses which sweat much are in the nature of things more chilly, suffer more from pinching cold, and are more liable to be seized by acute disorders, than horses which have more moderate exercise, and whose frames are less relaxed. A horse which has been enured to those transitions of heat and cold will, no doubt, bear them better than one which has always been used to a warm stable; and which certainly ought not to be exposed to such dangerous treatment without the greatest precaution.

“ I am nevertheless of opinion, that letting a horse run out in winter keeps his legs cleaner and more supple than standing always in the stable. My mare was not fresher on her legs

at four years old than she has been this winter. And if hunters could be turned out on leisure days, when the weather is tolerably fine, into a spacious place to hay and corn, without grass, I am of opinion it would be of great service to them. Horses which are unavoidably exposed to transitions from heat to cold—as hunters frequently are, in fauntering by the side of a cover after a hard run—ought, indisputably, to stand in a cool stable, and to be exposed to the open air on leisure days, so far as the state of perfect *health* and *vigour* will permit : *but no farther.*”

I make no comment on the foregoing facts and reflections. I insert them as a caution to the inexperienced : and as hints to those who wish to hit the happy medium of treatment.

Turning out horses to grass in the spring.—I met with an idea in this District respecting the first turning out of a horse entirely to grass, which deserves to be generally known.

When a horse is thrown up, or turned out at nights to grass, in the spring of the year, it is common to choose the *forenoon* of a *fine day* to do it in. The natural consequence is,
the

the horse fills his belly during the *sunshine*, and lays him down to rest in the *cold of the night*; thereby probably exposing himself to disorders.

A much better practice prevails here. The horse, instead of being turned out in the morning, is turned out *at bed-time*. The consequence is, he *eats all night*, and sleeps in the sunshine of the next day*.

* It is generally understood here, that HORSES AT GRASS do not require WATER. They are frequently kept for months together in dry upland pastures without water, and without any apparent inconveniency.

14.

CATTLE.

IN A SEQUESTERED Vale abounding with GRASSLAND, cattle may be expected: they are the most natural stock.

In the uninclosed state of this Vale, the Commons and Cars were applied chiefly to the rearing of WORKING OXEN and a few DAIRY COWS. In the West Marshes and other central parts of the Vale, which have been inclosed time immemorial, and which, until of late years, have always lain in a state of rough grass, great numbers of YOUNG CATTLE were reared for sale.

Converting the Lowlands to arable; inclosing the Commons; and laying the arable fields to grass, have wrought a considerable change in what may be called the ECONOMY OF LIVE STOCK; more especially in the ECONOMY OF CATTLE. DAIRIES have increased;

GRAZING

GRAZING has been introduced; and REARING has declined.

Thus far, however, the Vale may be said to have reared its own stock; excepting some few SCOTCH CATTLE, which are annually brought into it for the purpose of clearing rough pastures in winter; and to be fattened on secondary grazing-grounds the ensuing summer.

To give an adequate idea of the nature and management of cattle in this District, it will be proper to divide the subject into four principal divisions: namely,

1. The Species or breed.
2. Cows and dairying.
3. Rearing cattle.
4. Fattening cattle.

I. SPECIES. Within the memory of a person now living; namely, about seventy years ago; the ancient breed of BLACK cattle, which probably once prevailed throughout England, and whose name is still very improperly used in speaking of cattle in general, were the only breed of cattle in this District. By description, they appear to have resembled the present breed of the Lowlands of Scotland;

land : mostly *all black* ; but some with *white faces* : mostly *horned* ; but some of them “ *humbled* ;” that is *hornless*.

To these succeeded a BLACK AND WHITE breed ; probably a *variety* of the original species. But still the *red cow's milk* was considered as medicinal ; and many inveterate disorders were no doubt cured with it : that is to say, by a perseverance in milk-diet.

The black mottles, probably a transient sort, were succeeded by the LONG-HORNED or “ Craven breed :” the probable, and, I believe, undoubted origin of the present celebrated breed of the Midland counties.

But in a country where the business of aration was carried on principally by *oxen*, this breed was found extremely inconvenient. Horns a yard long were not only troublesome but dangerous in yoke ; especially in the narrow roads and hollow ways with which the District formerly abounded. Accidents were frequently happening to them ; by getting their horns entangled in the hedge or the bank ; sometimes breaking off their horns ; but more frequently breaking their necks.

This

This was a sufficient inducement for adopting the SHORT-HORNED or "Holdernefs breed:" probably of *Dutch* extraction. This change took place some forty or fifty years ago: and the short-horned breed still prevails; though it has undergone several alterations since its first introduction.

The first variety of this species of cattle which I can recollect, was a thick, large-boned, coarse, clumsy animal: remarkably large behind, with thick gummy thighs. Always fleshy, but never fat; the *flesh* being of a bad quality. This, however, was not the worst: the *monstrous* size of the buttocks of the calf was frequently fatal to the cow. Numbers of cows were annually lost in calving. These monsters were stigmatized with the epithet *Dutch-buttocked*. This was probably the worst breed the Vale ever knew.

The unprofitableness of the "Dutch breed" being evident, men of discernment began to set about improving it. In the course of the last twenty years the bone has been lowered, the hind-quarters reduced, and the flesh and fatting quality very much improved; not by foreign admixtures and un-

natural crossings, but by choosing the cleanest and best-fleshed bulls and heifers from among their own or their neighbours stock.

It is very observable, however, that in effecting this improvement, the *horn* has been considerably *lengthened*; the present prevailing breed appearing as if it were a cross between the old short horizontal horn—(provincially, “buckle-horns”)—and the middle elevated horn of Herefordshire and Suffex: not, perhaps, from either of these breeds having been employed in the improvement, but merely from the circumstance of a “fine horn”—namely, a clean, small, sharp horn—having been *fashionable* for the last twenty years.

This shews how much the appearance, as well as the nature or constitution, of a given breed of stock may be altered and improved, without calling in the assistance of *alien breeds*. Even the Dutch buttocks were probably *bred* in England.

The Holdernefs breed, on their first introduction into the Vale, were said to be *thin-quartered*, too light behind, and too coarse before; large shoulders, coarse necks, and deep

deep dewlaps. This form being found disadvantageous to the butcher, encreasing the quantity of the coarser parts, and reducing the weight of the prime pieces, the breeder endeavoured to enlarge the hind-quarters; and had he stopped when he had got to the happy medium, he would have wrought a good work. But the fashion was set;—"cloddy" bullocks were in estimation; and their evil qualities were overlooked until they were rendered too obvious, and the consequences above-mentioned had taken place.

The *form* and *size* of the PRESENT BREED OF THE VALE may be seen in the following dimensions of a working ox rising five years old; above par as to form, but somewhat beneath it in point of size.

Height at the withers, four feet eleven inches.

———— of the brisket from the ground,
twenty inches.

Smallest girt, seven feet four inches.

Largest girt, eight feet five inches.

Greatest width at the shoulder, twenty-two
and a half inches.

———— at the huckle, twenty-three
and a half inches.

Greatest

Greatest width at the round-bone, twenty-one inches.

Length from forehead to nache, eight feet five inches.

———— the center of the shoulder-knob to the center of the huckle, four feet one inch.

———— the center of the huckle to the extremity of the nache, twenty-two inches.

Length of the horns, fourteen inches.

Width of the horns at the points, twenty-two inches.

The eye full and quick.

The head and neck clean.

The bone somewhat large.

The chine and buttocks full.

The flesh soft and mellow to the hand.

The colour blood-red, marked with white.

But a variety new to the Vale is now creeping into it : the TEES-WATER BREED ; — a variety of the short-horned species. This variety is established on the banks of the Tees, at the head of the Vale of York, and is held out as the “ true Yorkshire short-horned breed.” Be this as it may, much attention has

has been bestowed on its establishment ; and it appears to be at present a most valuable breed of cattle : valuable, I mean, to the *grazier* and *butcher* : the bone, head, and neck fine ; the chine full ; the loin broad ; the carcase throughout large and well-fashioned ; and the flesh and fatting quality equal, or perhaps superior to those of the present breed of the Vale ; which, however, appear to be more *active*, more *athletic*, and fitter for the *yoke* or *harness*.

In forming that variety, a horn very different from that which is prevalent in the Vale has been produced. The “buckle-horn” is in this case, as in the other, somewhat lengthened ; but the *fashionable* horn on the banks of the Tees is a clubbed down-hanging horn, as if, in forming it, a dash of Craven blood had been thrown in. And it may be a moot point ; whether the horns of the two breeds, now particularly under notice, may have been produced by fashion alone ; or whether the Tees-water horn may not have been altered from the original short horn, by a slight intermixture of the Craven breed ; and whether the Holderness breed,
from

from which the Vale cattle have indisputably originated, may not have had a similar admixture of the middle-horned blood.

I wish to trace the origin and progress of the different breeds of cattle in the Island; but I find it will be a difficult task to do it with strict accuracy.

The HORN is the best criterion for distinguishing the different *species* (if the term be applicable) of cattle. It is a PERMANENT SPECIFIC CHARACTER. The *colour*, though not altogether accidental, is changeable; and neither the *form* nor the *flesh* are permanently characteristic of any particular species. Good form and good flesh may be found in every species; though they are by no means equally prevalent nor equally excellent in all. But a horn six inches long was never yet produced by the Craven breed; nor one a yard long by the Holdernefs breed. And the middle-horned breed of Herefordshire, Suffex, and other parts of the Island, appears to be as distinct a *species* as either of the former.

These are my only reasons for being so minutely descriptive of the horns of cattle. I am not a BIGOT to horns of any shape or length,

length. I would as soon judge of a man's heart by the length of his fingers, as of the value of a bullock by the length of his horns.

If his *flesh be good and well laid on*, and his *offal be proportionably small*; if he *thrive well, fat kindly at an early age, or work to a late one if required*; I would much rather have him *entirely without horns*, than with *any* which ENTHUSIASM can point out.

The doctrine of horns has long appeared to me as a species of SUPERSTITION among *Farmers*, and as a CRAFT convenient to *leading-breeders*, in establishing their respective *systems*.

But lest I should have cause to repent of my rashness in speaking thus irreverently of horns, I will here allow them all the merit which, in my opinion, truth entitles them to.

The horn has been mentioned as a permanent specific character of cattle. Hence in varieties it may have its use as a criterion. Thus supposing a male and female of superior form and flesh, and with horns resembling each other (as nearly as the horns of males and females of the same variety naturally

rally do), no matter whether short or long, sharp or clubbed, rising or falling; and supposing a variety to be established from this parentage, it is highly probable that the horns of the parents would continue for a while to be characteristic of the *true breed*, and might by inferior judges be depended upon, *in some degree*, as a criterion.

But it is indisputable that horns remain the same, while the flesh and fatting quality change; and every man of superior judgment will depend more upon the form and *handle* of the carcase, than upon the length and turn of the horn. For it is a notorious fact, that the individuals of a given variety may have exactly the same horns, without having exactly either the same fashion or the same flesh.

If there be any criterion or *point* of a beast which may be *universally* depended upon as a guide to the grazier, it is the EYE, not the horn. The eye is a mirror in which the *health* and *habit* of the animal *at least* may be seen with a degree of certainty.

II. Cows.

II. Cows. This admits of two principal subdivisions.

1. Management of Cows.

2. Dairying.

I. MANAGEMENT OF COWS. This subject requires to be further subdivided into

1. Rearing.

3. Treatment.

2. Purchasing.

4. Disposal.

i. *Rearing*. It has already been said that the Vale still continues to rear its own stock. The rearing of *cows* will appear in the next section, under the general head REARING CATTLE.

2. *Purchasing Cows*. Though a dairyman may in general rear his own cows, he must be fortunate indeed if he never have occasion to purchase a cow.

The favourite *points* of a milking-cow here are, a thin thigh; a lank thin-skinned bag hanging backward; teats long, and sufficiently free of milk without spilling it; dug veins large; and horns yellow. I will not vouch for the infallibility of *all* these points; but this I can say, that I never noticed a cow with a thick fleshy thigh which was a good milker.

The *dimensions* of the handsomest cow I have seen of the true Vale breed, rising five
years

years old, and within a few months of calving, are as follow :

Height at the withers, four feet five inches.

_____ of the brisket, eighteen and a half inches.

Smallest girt, seven feet one inch.

Largest girt, nine feet two inches.

Width at the shoulder, twenty-one and a half inches.

_____ huckle, twenty-four inches.

_____ round-bone, nineteen inches.

Length from forehead to nache, seven feet five inches.

_____ center of the shoulde-knob to center of the huckle, three feet eleven inches.

_____ center of huckle to the out of the nache, twenty-one inches.

Length of the horns, ten inches.

Width at the points, eighteen and a half inches.

Head, neck, and leg, *fine* and *clean*.

Chine full, and back level.

Colour, a darkish red mottled with white.

3. *Treatment of Cows.* Here, as in all countries where grazing gives place to the dairy, milked cows are indulged with the best the farm will afford. The best land for pasture in summer; the head of the fog in autumn; and generally hay most of winter. *This* practice has already been noticed. If the present breed of cows require hay when they give no milk, it is a depreciation of their value as milking-cows.

Be this as it may, there is certainly one disadvantage of the Vale breed of cows; which, I believe, is common to all the varieties of the short-horned breed. This is their *difficulty in calving*. For notwithstanding the *fleshiness* of the hind-quarter has been sufficiently done away, the *bones* still remain. The loin is still broad, and the huckles still protuberate; perhaps too much, either for *lightness* or use.

An improper treatment of the cow may encrease the difficulty. A cow can scarcely be too low in flesh a month before she calves. Good keep three weeks or a month before calving gives *due* strength and a flush of milk. The cause may be difficult to point

but with precision ; but the effect is well ascertained.

It is a fact, that short-horned cows seldom calve without *assistance*. Their hour of calving is watched with obstetric solicitude ; the person who has the care of them frequently rising in the night, and sometimes sitting up with them the night through. From constant observation, however, a good dairyman will judge at bed-time the hour of calving, sufficiently near to know whether it will be necessary for him to rise before his usual time.

4. *Market for Cows.* Milking-cows are mostly sold at the neighbouring fairs, *with calves by their sides*. Sometimes, but not frequently, they are sold as *incalvers*. The medial *price* of a cow and calf, on a par of the last ten years, seven to nine pounds.

Dry cows—provincially, “drapes”—are either sold at the fairs to jobbers, who buy them up for the Midland or South-of-England graziers, or are fatted on the dairy-farm with aftergrass, turneps, &c.—The medial *price* of a lean “drape” of the Vale breed, on a par of the last ten years, five to six pounds.

2. DAIRYING. The objects of the Dairy are,

1. Calves, for the butcher and for rearing.
2. Butter, for home consumption and the London market.
3. Skim-cheese, for home consumption.
4. Swine, for family-use and for sale.

1. *Calves.* The *rearing* of calves will be spoken of in the next section. The *fatting* of calves belongs properly to this.

There is a practice, pretty common in this neighbourhood, though not general, which merits notice from its singularity rather than from its excellency. In this practice the calf never sucks its dam! which, from the time of her calving, is milked into a pail, and the warm milk immediately given to the calf; which, never having had the teat, soon learns to drink.

The chief reason given for this practice is, that the cow does not pine after her calf; so much, at least, as when it is permitted to suck her.

For *rearing* calves I can see no material objection to this method, except that of additional labour, which is still more increased

when calves are *fatted* in that way ; the time being longer in this case : and it seems to be allowed that calves do not fat so kindly with the pail as when they suck the cow ; nor is it probably so good for the udder of the cow.

2. *Butter.* Great quantities of butter are annually sent out of the Vale. Many thousand firkins are sent from Malton ; and the produce of the west end of the Vale goes principally to York.

The fraternity of cheesemongers in London have agents, placed in different parts of the country, stiled "searchers," who probe and examine the quality of every firkin ; marking it *first*, *second*, *third*, or "*grease*," according to its intrinsic quality.

The *firsts* and *seconds* go to the London market ; the "*grease*" to the woollen-manufactory in the west of Yorkshire.

There are "weighers" likewise employed to check the weight of each firkin, each of which has its maker's name branded upon it. These are wise regulations :—the searchers' mark is a guide to the London dealer, as the farmer's name is to the country "factor." If

it will not bear the search, the factor has a clue to the farmer; if, on its arrival in London, it do not answer the mark, it is returned upon the searcher.

After what has been said in the RURAL ECONOMY OF NORFOLK on the subject of BUTTER-MAKING, there is nothing in the practice of this District which entitles it to minute description. There are, nevertheless, a few particulars which may merit notice,

Cleanliness, the basis of good management, is well attended to in most dairies; perhaps too closely in some. Formerly, the milk was set wholly in deep wooden bowls, almost semi-globular: a worse form could not be well devised. Now, it is set principally in leads—provincially, “lead-bowls”—made in the usual broad flat shallow form; a form much better calculated for raising the cream*.

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These

* In some countries milk-leads are skimmed with a skimming-dish. Here, the milk is let off through a hole in the center, leaving the cream in the lead. The pipe through which the milk escapes is fitted with a tall wooden stopper. Previous to drawing the stopper, a loose wide leaden pipe, seven or eight inches long, is put over it. The base of this pipe is notched, or otherwise made uneven, so as to admit the milk to steal away beneath it, without endangering the escape of the cream; which (the pipe being removed) is afterwards let down through the same aperture.

These leads are *scalded* as often as they are used ; and, in common practice, are *scoured* about once a month. But this has been found, in the practice of one whose cleanliness cannot be doubted, to be injurious to the butter churned next after the scouring of the leads. The effect is not immediately apparent ; but the butter will not keep ; presently turning rancid. She therefore scours her leads only once a year ; about Mayday ; and then with fine sea-sand ; not with *salt* ; the common material used in scouring lead bowls *.

The *barrel churn* is now chiefly in use. An improvement has lately been made in its form. Formerly the staves were nearly straight ; now they are bent ; the churn being made considerably bulging. By this means a churn large enough to churn a firkin (56 lb.) at once, may be used to churn
three

* I mention this circumstance, as many "grease firkins" may be made through the means here noticed ; and, if the evil effect be caused by a solution of the particles of lead loosened by the scouring, the butter, if *eaten* in a recent state, may be of still worse consequence.

three or four pounds. The entire quantity of the cream, though small, being collected in the bulge, receives its due agitation. The “standing churn,” an awkward utensil, seems to be going out of use. A barrel churn, two feet and a half long, two feet diameter at the mouth, and twenty-one inches at the ends, with dashers six inches wide, will churn either a firkin, or a few pounds, of butter. The price of such a churn is about fifty shillings; iron hoops, cranks, frame, &c. inclusive.

The *firkins* are made in the neighbourhood, at very low prices (price of a “whole firkin,” weighing 12 lb. 10d. to 1s.—of a “half firkin,” weighing 7 lb. 8d. to 9d.). The staves and heads of ash; the hoops principally of hazle. The firkin is scalded and salted on the inside, previous to its being used: salt is strewed at the bottom; the butter closely kneaded in; covered at the top with salt; and headed up for market.

The “first gathering” is generally sent to market in the spring, in a recent state; the “summer butter” (namely, that gathered be-

tween the latter end of May and the beginning of November) is sent from time to time as the factor's or the farmer's convenience requires; or is sometimes kept to the close of the season, and carried at once to market.

The price of firkins, for the last ten years, 28s. to 32s.

3. CHEESE. Skim-cheese—provincially, “old-milk cheese”—is the natural accompaniment of a butter-dairy. In the richer parts of the Vale, towards the banks of the Rye, some “new-milk cheeses” are made; and of a quality nearly equal to those of Gloucestershire. But on the leaner parts of it, this species of cheese is seldom attempted.

I have met with nothing striking in the manufacturing of skim-cheese to deserve notice; excepting what relates to the CURD-MILL; a utensil of the dairy which I never met with elsewhere, and which is new to this District.

In *making skim-cheese*, the curd is broke-up in the whey; the whey, when the curd has subsided, laded off; the remainder, with the curd, thrown into a coarse strainer; and hav-
ing

ing lain abroad in this (spread over a large tray, with a hole at the corner to let out the whey which drains off) until quite cool, the corners and loose part of the strainer are gathered together in the hand, and the curd squeezed as hard as the hands can press it. The curd in the strainer is then put into a vat, and set in the press for a few minutes to discharge the remaining whey more effectually. The whey having done running, the curd is taken out of the press, and rebroke as finely as possible; salted; and returned to the press.

It is in the final breaking the CURD-MILL is used. The labour of doing it by hand, when a large quantity of curd is to be broken, is almost intolerable. In a large dairy, a curd-mill must be found very valuable*.

The

* CURD-MILL. This utensil consists of two rollers working in a thin deep chest, one above the other; on the principle of the common cyder-mill of the southern counties. The upper one is stuck with iron spikes, an inch long, and $1\frac{1}{2}$ inch asunder. — The lower one is closely set with bevelheaded nails, rising with a sharp angle about a tenth of an inch out of the surface of the roller. The curd, partially broken, is put into a hop-

The *consumption* of skim-cheese is principally in the neighbourhood of its manufacture. It is eaten by almost all ranks of people. If well made, it is not only palatable, but, I apprehend, a very wholesome food. To have it in perfection it should be, what is called, kept one year under another: that is, should not be eaten under a year old.

The *price* on a par of the last ten years 2s. to 2s. 6d. a stone (of 14 lb.).

4. *Swine.* The whey of skim-milk is only a lean beverage for swine; but mixt with butter-milk, a tolerable food is formed. Pigs, however, are only *grown*, seldom *fatted*, with the “*swillings*” of the dairy.

a hopper, the bottom of which is the upper roller; which working against the side of the box, prepares the curd for the bottom roller; which being finer, and working closer, grinds it down to small granules. The rollers are about six inches diameter, and fifteen inches long. They are both of them turned by one crank; put on one end of the axle of the upper roller. On the opposite ends of the rollers are fixt two even-toothed wood wheels; working in each other, and giving motion to the lower roller.

The

The *produce* of a good cow in a common year is thus calculated :

| | | |
|--|---|----------|
| A rearing calf | — | 0 15 0 |
| 3 firkins of butter *,—at 30s. | | 4 10 0 |
| $\frac{1}{2}$ cwt. of skim-cheese,—at 18s. | | 0 9 0 |
| Milk and whey for hogs | | 0 10 0 |
| | | <hr/> |
| | | £. 6 4 0 |

III. REARING CATTLE.

I. CALVES.

1. *Time of rearing.* Candlemas to Old Ladyday.

2. *Points of a rearing Calf.* The *form* I pass over in this place, as not having met with an accurate definition of it in this country ; where the *blood* and the *colour* seem to be more attended to by breeders in general than the *form*.

A “ *raw nose* ;” that is, a *white muzzle*, with nostrils red on the inside ; is considered as a bad mark, portending a tender beast : on the contrary, a black or brown muzzle, with dark-coloured nostrils, is esteemed a sign of hardiness.

A calf

* A large dairy of cows in which heifers are intermixt, seldom turn out three firkins each. Two and a half is, I believe, esteemed a good produce, taking the dairy round.

A calf *entirely white* is generally rejected, under a notion that white cattle are of a tender nature; that they are peculiarly subject to lousiness; and that they are disliked by their associates! The finest ox I ever knew of the Holderness breed was *white*. The finest ox I ever saw of the Tees-water breed was *white*. One of the finest cows now in the Vale is *white*. Nevertheless, valuable calves are annually sent to the butcher, merely because they are *all white*. The smallest speck of colouring; even the tip of an ear, red or black; saves them from proscription: under a notion, no doubt, that it hardens their nature; defends them from lice; and renders them acceptable to their companions: a vulgar error, which is not confined to this District; but which ought, in my opinion, to be universally exploded.

3. *Gelding Calves.* Oxen in this country (as probably in others) are peculiarly subject to a stoppage in the intestines; owing, it is believed, to the "blood strings" of the testicles being left in the body at the time of gelding. The fact seems to be, that
the

the disorder is generally caused by a *link* of the intestines being thrown (in playing, it is supposed) across a ligature situated near the anus; and the cure is radically effected by breaking this ligature: an operation which is not unfrequently performed*.

If the ligature be really a string of the testicle, indexterously left in the calf, much caution is requisite in the operation of gelding.

An experienced cutter performed it thus: Having extricated the testicle, and cut the feminal chord—the “nature string,”—he forced

* I remember once to have seen this operation; and have lately heard it minutely described by a person who has repeatedly performed it. It is simple and safe. An orifice large enough to admit the hand being made in the coats of the abdomen—on the near or left-side—(between the ribs, the huckle, and the flank) the intestines are drawn forward into their natural situation, and the string broke: otherwise the beast is liable to a repetition of the same disorder. The symptoms are restlessness, with attempts (but not violent, I believe) to beat the belly with the hind legs; and with a stoppage of the fæces; nothing passing through the body but a white slimy matter. In many places I apprehend this disorder is not well understood; being mistaken for *maw-bound*, or other internal disorder. Death is of course the inevitable consequence.

forced his finger and thumb upward, as it were into the body of the calf; (which stood on its legs during the operation) drawing the "blood string" twelve or fourteen inches long: the point of it appearing not abrupt, as if broken off; but fine as a thread, as if wholly extracted.

4. *Treatment of rearing Calves.* This differs in the practice of different individuals. In an instance which, perhaps, may be considered as a fair specimen, the treatment is this:—The calf never sucks its dam; but has her milk warm from the teat given to it twice a day in a pail; from the time of calving until it be a fortnight or three weeks old. At that age the calves begin to have half new milk and half skim-milk, *boiled* (which is thought to be more "nourishing" than raw milk) for about three weeks longer: they are then put to all skim-milk, or to milk and water, with perhaps a little oat-meal or wheat flour strewed over it *; and with hay,

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* Sometimes a small quantity of LINSEED JELLY is mixt with thin milk and water, and is found of great service; making their skins remarkably sleek and silky. If too much be used, it is liable to make them scour.

in the early part of the season; or grafs, as soon as spring puts in. In the latter end of May, or the beginning of June, according to the time of their being dropped, they are turned away to grafs, and water only, for the summer.

2. YEARLINGS. Young cattle are, I believe, invariably, housed the first winter:—generally loose; and are generally indulged with the best hay the farm will afford. Their summer pasture is such as conveniency will allow them: mostly of a secondary nature. In the open-field state, the common was generally their summer pasture.

3. TWO-YEAR OLDS. The second winter, oat straw is the common fodder of young cattle. Generally tied by the neck in hovels or under sheds. Their summer pasture, commons, woody wastes, rough grounds, or whatever best suits their owner's conveniency.

At two years old the STEERS—provincially, “stots,”—are generally broke-in to the yoke; but are not, by good husbandmen, worked much at that age.

At two years old, also, the HEIFERS—provincially, “whies,” are generally put to the bull.

bull: This, however, is not an invariable practice. In the state of commonage, they were frequently kept from the bull until they were *three* years old: now, in the state of inclosure and improvement, and at the present high rents, they are frequently suffered to take the bull when *yearlings*; bringing calves at two years old.

This is an interesting subject in the management of cattle. Farmers in every District differ in their opinions respecting it:

The arguments for bringing heifers in at TWO YEARS OLD, are, that they come sooner to profit; and that farmers cannot afford, at the present rate of rent, to let them run, unprofitably, until they be three years old.

On the other hand, the argument in favour of bringing them in at THREE YEARS OLD is that, not being stinted in their growth, they make larger finer cows than those which are suffered to bear calves at a more early age.

But I have not yet met with any man who even attempts to prove which of the two is, *upon the whole*, the more profitable practice.

The

The gardener seems to be well aware, that suffering a tree to bear fruit too early *checks its growth*; and there may be some analogy, in this respect, between vegetables and animals. But even admitting this, if the cow receive no injury as to *thriving, calving, milking*, nor any other than that of being checked in point of *size*; the objection appears to me to fall. If, however, early production check not only the *cow*, but her *progeny* likewise, an objection no doubt will lie against it.

I have long been of opinion that it is, *in general*, the farmer's interest to let his heifers take the bull whenever nature prompts them. There is undoubtedly some present profit arising from their coming in at an early age; and whether a middle-sized cow may not afterwards afford as much *neat* profit as one of larger stature, is certainly a moot point.

Much however depends upon *KEEP*. A starveling heifer will not take the bull at a year old. Nor ought any yearling heifer which has taken the bull, ever afterwards to be stinted in keep. If she be ill kept while with calf, there will be danger at, or after,

the time of her calving. If afterwards pinched, there will be danger of her not taking the bull the next year.

Hence we may infer, with a degree of safety, that the propriety, or impropriety, of bringing heifers into milk at two years old depends principally upon SOIL and SITUATION.

On a good soil, and in a genial climature, in which heifers do not experience a check from the time they are dropt, they ought, I am clearly of *opinion*, to be permitted to take the bull whenever nature prompts them.

But in less genial situations, where lean ill-herbaged lands are to be pastured with young cattle, it appears to me equally evident, that heifers ought not, in strictness of management, to be suffered to come into milk before they be THREE YEARS OLD.

GEN. OBSERV. ON REARING CATTLE. The present *deariness*, arising beyond dispute from a *real scarcity*, of cattle appears to be a matter of serious import to the community. Had it not been for the immense influx of Irish cattle, which have, during the last three or four years, poured into this Island, the grazing

zing grounds could not have been fully stocked; nor the markets well supplied. There is not, generally speaking, any *aged* cattle left in *this* kingdom.

There can be only two reasons of this scarcity: either the CONSUMPTION OF BEEF must have lately *increased*, or the REARING OF CATTLE must have *diminished*; or the effect must have been produced by the joint operation of the two causes.

I wish to bring the matter to a rational issue; and have endeavoured to collect evidences in the Districts I have visited. This District affords two, which appear to be admissible.

Twenty or thirty years ago, there was not, for the smaller markets of *this* District, a single beast killed (except upon some extraordinary occasion) during the winter, spring, or summer months. In autumn, particularly in the month of November, considerable numbers were butchered, to be salted and hung for winter provision; hung-beef being formerly a standing dish, not only in this, but in other Districts *. But the number

* HANGING BEEF. Formerly, before the cultivation of turneps, &c. as winter food of cattle; and be-

which were then killed in autumn was small, compared with the much greater numbers that are at present butchered in the District; every market of which is now plentifully supplied with beef the year round; and this, notwithstanding considerable quantities are still hung in autumn. The market of Malton might well vie with the London markets. If only twice the quantity of beef be consumed in the District now, of what was consumed fifty years ago, the evidence is good.

Twenty or thirty years ago, great quantities of young cattle, bred in the common pastures, and in the rough grounds of the marshes, and other central parts of the Vale, were annually sent out of it. The number of lean oxen, too, which were sent out of the country

fore the use of oil-cake, &c. was known; more especially in *open* countries, at a distance from marshes, fens, and rich *bayland* Districts; the practice here noticed was a thing of *necessity*. The only opportunity the husbandman had of raising his cattle above the half-starved common-pasture condition, was in the wane of summer, with the aftergrass of the common meadows, and the stubbles of the common fields: these done, his sources of *fattening* were exhausted, without a possibility of renewal, until the wane of the ensuing summer.

country was very considerable. Now, the Vale, perhaps, barely rears its own stock. A few young cattle may go out of it every year; but a number of Scotch and some Irish beasts, and generally more or fewer young cattle from the Tees-water quarter, are annually brought into it. A few lean oxen, (few in comparison with what formerly went out) and some barren cows; and a surplus of fat cattle driven to the ports of Whitby and Scarborough; may be said to be the only cattle which the Vale at present sends to market.

The causes of this decline are the increase of horses; the increase of tillage in the lower parts of the Vale; and the increase of the dairy upon its margins; an increase of grazing grounds in the richer parts; and, throughout, an increase in the consumption of beef.

This too may be fairly admitted as a circumstantial evidence, at least, of a growing scarcity of cattle at present in these kingdoms. I mean a scarcity comparative with the present consumption.

I shall, in their proper places, have other evidences to produce. At present, therefore, I do not attempt any general conclusions.

IV. FATTING CATTLE. Although grazing has of late years gained some footing in the Vale, it does not yet fall under the denomination of a *grazing country*. A detail of management must not therefore be expected: and the only *incident* of practice which has occurred to my notice, and which appears to be entitled to a place in this register, is the following; at once evidencing the propriety of *finishing* fattening cattle; and giving a favourable specimen of the YORKSHIRE BREEDS OF CATTLE.

The subject of this incident is a cow which was bred and fatted in this neighbourhood. Her dam was of the improved breed of the Vale, with an admixture of the Craven or long-horned breed. Her sire a Teeswater bull of the first blood; being leaped at half-a-guinea a cow; which, twelve years ago, was a very high price.

From the time of her being dropped she was remarked as a good thriver; she came in at three years old; had one cow-calf which was reared, and three bulls, all of which died before they were three weeks old! they being

being seized about that age with a numbness in their limbs; soon dying with jellied joints, and symptoms of a general mortification. Like most high-bred cows, she milked well for a few weeks after calving; but afterwards fell off her milk, and generally got to be good beef about Michaelmas.

After her last calf (in 1782) she was milked until August; when she was tolerable beef; worth, at the then low price of beef, about ten pounds. In autumn she had after-grass; in winter turneps, hay, and oat-sheaves (in the house), but no ground corn. In March 1783 she was sold for twenty pounds to return one guinea: consequently she paid more than six shillings a week for fattening.

Her dimensions, a few days before she was slaughtered, were these:

Height about four feet six inches (not accurately taken).

Smallest girt seven feet six inches,

Largest girt nine feet,

P 4

Length

Length from shoulder-point to huckle four feet.

Length from huckle to the extremity of the nache, two feet two inches.

Width at the huckles from out to out, two feet two inches.

Her *horns* fine; of a whitish-grey colour; sharp; somewhat resembling the Craven horn; but shorter; and turned upward at the points in the middle-horn manner: her *head* and *neck* small and clean; her *legs* short, and her *bone* throughout fine.

Her *points* as to fatness were not all of them full. Her *kernel* was small, and her *shoulder* bare; her *fore-dug* and *flank* not extraordinary; her *chine* and *loin* were well laid up; one dimple, but not regularly cloven; she was not what is called very fat *upon*: but her *rib*, her *buckle*, and her *nache*, were very good; and her *twist* remarkable; bulging out in an extraordinary manner *.

She

* Taking the dimensions of cattle, and describing their points with minuteness, is not merely a matter of curiosity. Nothing matures the judgement more speedily, nor gives a more adequate idea of the due proportion of the parts of a bullock. I never, however,

She *proved* as follows : the quarters equal ; exactly eighteen stones each ; together seventy-two stones (fourteen pounds each) ; the tallow eight stones ; the hide seven stones.

The weight is not remarkably great ; but, that a *small* cow should lay it on in *seven months* is extraordinary.

ever, understood that the admeasurement of cattle was reduced, any-where, to *common practice*, until lately. In the West of Yorkshire, I am told, the manufacturers, who kill their own beef, carry measuring tapes to market with them. The butcher by constant practice may be a match for the grazier with his *eye* alone : but it is certainly prudent in the clothier to take his *measure* with him also.

A WEIGHING-MACHINE would, however, in this case be a much safer guide. One, fixed in a single stall, opening with folding-doors to the street, would be a good appendage to any market-place.

SHEEP.

15.

S H E E P.

THERE ARE FEW large flocks kept in the VALE. The farms are chiefly small, and the commons are now mostly inclosed. Almost every farmer, however, keeps a few; so that, on the whole, the number kept is considerable.

The general economy of sheep is here very simple. Every man, let his number be great or small, rears his own flock: his store-flock (in the inclosed parts of the Vale) consisting of ewes,—hoggards,—and sheerling wedders; his returns being in fat lambs,—two-sheer wedders, (lean or fatted on turneps, hay, &c.) and aged ewes. In the richer parts of the Vale sheerling wedders are fatted.

But in the MORELANDS, and upon the heights of the northern margin, where considerable flocks are kept; especially in the
more

more central parts of the Morelands; a different economy prevails. The lambs are all reared, and the wedders generally kept until they be three or four sheer; mostly selling them and the aged ewes lean, in autumn, to the Vale farmers; or if the walk—provincially, the “heaf”—be good, they will sometimes get fat enough upon the heaths for the butcher.

1. Species.

3. Treatment.

2. Rearing.

4. Markets.

I. SPECIES. The old *common* stock of the Vale was a thin-carcased, ill-formed, white-faced, hornless breed. This (perhaps a weak worn-out variety) has of late years been so much improved, as no longer to bear marks of its former degeneracy. I speak of the more highly improved flocks of the Vale. The old base blood may still be detected in the flocks of less attentive breeders.

The improvement has been effected by the introduction of rams of the Leicestershire and Tees-water breeds; the former purchased or hired of Mr. CULLY of Northumberland (a spirited and successful disciple of Mr. BAKEWELL of Leicestershire); and the latter

latter of Mr. Collins, and other attentive breeders, in the neighbourhood of Darlington, on the banks of the Tees.

Fortunately, perhaps, for the Vale, two of its most considerable farmers, to whom it is principally indebted for its present improved breeds of stock, differ in their opinions respecting the superior excellency of these two breeds of sheep; each of them propagating and encouraging his own favorite breed.

Both of them are excellent, though perhaps widely different in their origin. Of the Midland breed I say nothing in this place, as I may hereafter have occasion to speak of it fully. The Tees-water breed falls within the intention of the present work.

The "mud" sheep have been inhabitants of the banks of the Tees time immemorial. I remember them twenty years ago of enormous size, resembling, when their wool was in full growth, the smaller breeds of cattle rather than sheep. Their *flesh* nevertheless was of an excellent quality; their *wool* (as long wool) fine, and of an uncommon length, singularly adapted to the worsted manufactory.

The

The present fashionable breed is considerably smaller than the original species; but they are still considerably larger and fuller of *bone* than the Midland breed. They bear an analogy to the short-horned breed of cattle, as those of the Midland counties do to the long-horned. They are not so compact, nor so complete in their form, as the Leicestershire sheep; nevertheless the excellency of their flesh and fatting quality is not doubted; and their wool still remains of a superior staple. For the banks of the Tees, or any other rich fat-land country, they may be singularly excellent*.

The MORELAND breed of sheep has always been very different from that of the Vale, and has not perhaps varied during a succession of centuries. It is peculiarly adapted to the extreme bleakness of the climature, and the extreme coarseness of the herbage. They live upon the open heaths the year round. Their food heath, rushes, and a few of the
coarcest

* In this District the Midland sheep appear to gain a preference. One leading breeder lets out a considerable number of rams every year; and has already got the prices to ten or fifteen guineas for the season.

coardest grasses; a pasture on which, perhaps, every other breed of sheep of *this* kingdom would starve.

The Moreland sheep are probably of Scotch extraction: they resemble much the Scotch sheep which are sometimes brought into the Vale: their horns wide; the face black or mottled; in *countenance* and general appearance very much resembling the Norfolk breed; except that their wool is somewhat longer, and much coarser, than that of the Norfolk sheep. The covering of their buttocks is mere hair, resembling the shag of the goat, rather than the wool of sheep. But this is considered as a mark of hardiness; and the Moor-dale shepherds are said to prefer a coarse-wooled shaggy tup. The carcases of these sheep are small; not much larger than the heath sheep of Norfolk: the ewes, moderately fattened, weighing from seven to ten pounds; the wedders ten to fourteen pounds a quarter.

II. REARING. The common time of putting ewes to the ram, in the Vale, is from old Michaelmas to the latter end of October; bringing them in the latter end of March, or the

the beginning of April. In the Morelands, the latter end of November, or beginning of December, is chosen for the time of putting to, in order that the snows may be pretty well over before lambing-time.

If *twin lambs* be preferred, the ewes are put to superior keep a few weeks before the ram be admitted. This likewise brings them in nearer together than when they are put to the ram in low condition.

It is also understood by attentive shepherds, that ewes ought to have an increase of keep a few weeks *previous* to their lambing; but less judicious sheep-masters think it sufficient to put them into good keep *as they drop their lambs*.

This, however, is a very faulty practice. If there be any *mystery* in the rearing of sheep, it lies in giving the ewes a FLUSH OF MILK *at* the time of lambing. This cannot be done without putting them to good keep a fortnight or three weeks *before* that time. An additional supply of milk cannot be *commanded* in a few hours. The carcase of the ewe, as well as her udder, may require to be
fatu.

saturated at the time of lambing, left, *in the interim of preparation*, the lamb be stinted or starved.

Another practice to which attentive breeders pay due regard is, that of trimming—provincially, “docking”—breeding-ewes, as early in the spring as the state of the weather will permit. I have seen the bags of ewes (of the modern breed) so heated with the dung and urine which hung about them, as to become chafed to running sores. The bag ought to be trimmed a few weeks before lambing (when the ewes are put to fresh keep), and the tail and buttocks as soon as warm weather set in.

GEN. OBSERV. ON REARING. To render the breeding of sheep profitable, much attendance and attention is requisite. A few ewes, therefore, cannot be worth the notice of any man, except a small pains-taking farmer, who has little else to attend to. I have seen more labour and attention thrown away upon a score of ewes than their whole produce was worth. A ewe-flock large enough to employ a shepherd, is, in many situations, the most profitable stock.

III. TREAT-

III. MANAGEMENT OF STORE SHEEP. The only particular of management which is here entitled to notice is, that of dressing them in autumn with tar and grease—provincially, “SALVING;”—the tar and grease with which they are anointed being aptly enough termed *salve*.

How the practice was first introduced into the District under survey does not appear to be at present known, though not of more than fifty years standing. It probably travelled from the north, where I find it is now in use;—not from the south, where I have never met with the smallest traces of it.

The intention of this practice is to kill lice, prevent the scab, and make the wool grow; and another idea, I believe, is, that it fortifies the skin against the severity of the winter's cold.

Whether it answer all or any of these intentions I will not assert. Whatever may be its effects, it has now been the invariable practice of the District for near half a century. I have not at least met with more than one man who has deviated from it, through principle.

This deviation, however, is made by one who seldom acts from caprice. He does not wholly deny its use, but thinks its effect is very transient. He has found tobacco-water more effectual against vermin;—oil of tar, if cautiously used, a safe and certain remedy of the scab;—and is of opinion, that salving is of little if any use to the growth of the wool: he allows that it may encrease the *weight* of the wool in proportion to the quantity of dirt it contracts; but thinks it does not add to the *quantity*.

Whether it does or does not may, nevertheless, be a moot point:—ointment rubbed on a recent scar of a horse is believed to assist the hair in growing. Pomatum is allowed to encourage the growth of the human hair; and it is *probable* that salve may have *some* effect on the growth of wool: the only doubt in my mind is, whether the advantages, upon the whole, are adequate to the expence.

This is a matter difficult to be ascertained: I can say, that the scab does not appear to be less prevalent in this than in other Districts: and it appears probable to me that, notwithstanding the present prevalency of the practice,

tice, it will in time wear away. I will, nevertheless, here give a detail of the process; not to prolong its continuance, but to memorize a practice which at present gives cold and dirty employment to thousands, some weeks in every year.

The *mixture* is eight pounds of *butter* (of the second, third, or fourth quality—see article DAIRYING) to one gallon of *tar*. The butter being dissolved, the two ingredients are poured into a tub or other vessel, and stirred for some time with a long wooden spatula; agitating them violently, and uniting them intimately together. The general guide is to keep stirring until the butter has regained its stiffness sufficiently to hold the stirring-stick erect in the ointment; which, when quite cool, is of the consistence of butter in warm weather. Some put the tar previously into the “salve-tub,” and stir that alone until it loses its blackness, acquiring a mellow yellowish hue; then add the dissolved butter, and continue stirring until the stick stand on-end. If the butter be heated too much, it is thought to injure the tar: it should be barely *oiled*.

The *time* of salving is from Michaelmas to Martinmas.

The *method* is this: the feet of the sheep being bound, it is laid upon a bier—provincially, a “creel”—(about six feet long—two feet wide in the middle—twenty-one inches toward the ends—with four legs about two feet long). The “salver” sits astride of one end of the creel, the shoulder of the sheep resting against his thigh; its head under his arm.—He begins the operation by parting—provincially, “shedding”—the wool from the withers to the tail, leaving a straight cleft upon “shed” or cleft in the wool the whole length of the sheep. This cleft ought to be perfectly straight and clear at the bottom; a form which practice only can give it. It is made by taking the wool on each side in the hands and pulling it asunder, forming the cleft with the thumbs. The fissure made and the wool pressed down flat on either side with the hands and wrists, the workman takes a piece of ointment the size of a large hazle-nut (from a kind of dish formed out of a block of wood in the shape of a cheese), upon the *side* of the end of his fore-finger, and applies it

it to the skin of the sheep; driving it along the bottom of the shed some six or eight inches, with a degree of sleight which experience alone can teach: the perfection of the art lies in distributing the ointment evenly, and in applying it entirely to the *skin*, without fouling the *wool*, except immediately at the root. One "finger-full" being expended, another and another is applied, until the whole length of the first shed be finished; when a second cleft is made, about an inch or an inch and a half from the first. In making the second and every succeeding shed, the fingers of one hand are kept in the last-made cleft, by which means an experienced workman is enabled to make the partings exactly parallel with each other. Towards the back of the sheep the sheds are made closer to each other than they are beneath its barrel; where the wool being thinner, the scab is less liable to make its attack.

Ten or twelve sheep of the middle size are esteemed the day's work of one man. His wages, and board, fifteen to eighteen pence a-day.

The expence is thus calculated : thirty
sheep take eight pounds of butter
(seconds, thirds, or grease), worth

| | | |
|--------------------------------------|-------|---|
| on a par fourpence halfpenny a pound | 3 | 0 |
| One gallon of tar, costing on a par | 1 | 0 |
| Labour | — | — |
| | 3 | 6 |
| | <hr/> | |
| | 7 | 6 |

Five shillings a score, or threepence a sheep.

IV. MARKETS. West-Yorkshire is the principal market for WOOL. Formerly, a manufactory of coarse woollen-cloth was carried on in the eastern Morelands ; but at present it is almost wholly laid aside.

The following are the weights and values of the fleeces of different breeds of sheep in the District :

Moreland store ewes, one and a half pound,
at 4d—6d each !

— aged wedders fatted in the Vale,
two and a half pounds, 4d—10d.

Ewes of the old Vale breed, summered on a
common, four pounds, at 6d—2s.

Two-sheer wedders of the same breed, four
and a half pounds, 2s. 6d.

Ewes

Ewes of the improved breed, summered in inclosed grounds, seven pounds, at 5d—3s*.

Wool is here sold by the *stone* of *seventeen* pounds.

The markets for *CARCASSES* are, the market-towns in the neighbourhood, and the ports of Scarborough and Whitby.

The price of mutton in the markets of the Vale, ten years ago, was twopence halfpenny to threepence a pound. This year (1787), fourpence to fourpence halfpenny a pound.

But the most striking evidence I have any where met with of the recent rise in the price of live stock may be taken from the Moreland *store* sheep; a species of stock which has undergone no change whatever either by breeding or by cultivation.

The price of Moreland *store* ewes, ten or fifteen years ago, was two shillings and sixpence to five shillings a-head. This autumn, they were sold for eight shillings and sixpence. The price of Moreland *store* wethers, the same time ago, was six to eight shillings a-head. This autumn they have been sold for fourteen shillings!

Q 4 R A B.

* None of the sheep from which the above fleeces were taken were salved.

16.

R A B B I T S.

THE VALE affords few rabbit-warrens. The northern margin is the only part of it adapted to this species of live-stock. At *Dalby* there are two pretty large warrens. At *Lockton* there is one now "planting." And there are other parts of these heights which might be profitably stocked with rabbits. In general, however, property is too much intermixed to admit of an improvement so singularly adapted to the nature of these high grounds.

In situations where the *ground* *, as well as the soil, is suitable to rabbit-warren, and where an extent of it sufficiently large can be collected together in one property, there is a very strong reason why it may be profitably stocked with rabbits.

The

* See NORF. ECON. ART. RABBITS.

The hide of a bullock (of some breeds) is not worth more than one-twentieth of his carcase. The skin of a sheep may, in full wool, be worth from a sixth to a tenth of its carcase. But the fur of a rabbit is worth twice the whole value of the carcase: therefore, supposing the rabbit to consume a quantity of food in proportion to its carcase, it is, on the principle offered, a species of stock nearly three times as valuable as either cattle or sheep.

This theory is strongly corroborated by an incident of practice. One of the warrens of this District contains eighteen hundred acres of surface; most of it covered with a black moreland soil; part of it a barren dead gravel; some little of it a thin limestone loam; not worth perhaps, on a par, *for the common purposes of husbandry*, a shilling an acre; nevertheless, these eighteen hundred acres are let, *as a rabbit-warren*, for three hundred pounds a-year!

I will not pretend to say that the warren here alluded to is worth three hundred pounds a-year, nor assert that it is not worth a shilling

ling an acre to a husbandman. If it be worth two hundred and fifty pounds as a warren, and supposing it to be worth even two shillings an acre as a farm, it still is a sufficient evidence of the profitableness of rabbit-warrens, in proper situations.

As I shall, in giving a sketch of the husbandry of the WOLBS, have occasion to speak fully of this species of stock, it is needless to dwell on the subject in this place.

S W I N E

17.

S W I N E.

THE HUSBANDRY of swine has undergone a total change in this part of the District within the last thirty or forty years.

Formerly, there was scarcely a BREEDING sow in the Vale. The entire supply of store pigs was from the Wolds, through the medium of Malton market. Now, they are bred wholly in the Vale.

The BREED, too, has been totally changed. The Wold pigs were of the white, gaunt, long-legged sort, which appear to have been formerly the prevailing species throughout the kingdom. Now, the black-sandy Berkshire breed is prevalent; with a mixture, here, as in other places, of the oriental species.

There is a variety of *this* species the individuals of which have two valuable properties.

ties. They are remarkably *cadish* and quiet; of a disposition directly opposite to that wildness and ferocity which I have experienced in other varieties of this species of swine in different parts of the Island. Their other good quality is that of their *pasturing* freely; not only upon the better grasses, but upon some of the more noxious weeds; particularly the dock. This is a property of swine, which is worth attending to by the breeders of this species of live stock.

The GENERAL MANAGEMENT of swine in the Vale has likewise undergone a change. Formerly the Wold pigs, which were not fatted for home-consumption, were returned to Malton, full-grown and fleshy, but not fat; and were there sold to drovers; who bought them up, probably, for the distillers, starch-makers, &c. of the metropolis. Now, the surplus, which is much greater than formerly, are fatted, butchered, and sold, whole, to bacon-makers; who salt and dry them for the London and West Yorkshire markets.

POULTRY.

is remarkably early and quiet. The office, directly opposite to that wild-ferocity which I have experienced in other varieties of his species of wine in parts of the island. Their other quality is that of their passing freely upon the better grasses, but upon the more noxious weeds; particu-

POULTRY.

NOTHING sufficiently striking has occurred to me in this District respecting the management or the breeds of poultry, to excite particular notice. The different species, and the management of them, are on a par with those of the Island in general.

and were there some who bought them up, probably the dealers' flock-masters, &c. of the metropolis. Now, the surplus, which is much greater than former-ly was, is sold, butchered, and sold, whole, to

B E E S.

London and West Yorkshire markets. The power of the bees is much of the honey which begins to flow in the month of May.

POULTRY

19.

B E E S.

THIS MAY be called a Bee-country;—especially the Morelands and the northern margin of the Vale; where great numbers of bees have been usually kept; and great quantities of honey collected; chiefly from the flowers of the heath; which afford an abundant supply; but the produce is of an inferior quality; brown and strongly flavoured.

In hives situated between the heaths and the cultivated country, a striking contrast is observable between the spring and the autumnal combs. The former gathered wholly from the meadows, pasture-lands, trees, and cultivated crops; the latter entirely from the flowers of the heath; none of the species of which begin to blow until late in the summer.

The

The combs of the former will be nearly white as snow : and the honey limpid almost as the purest oil. Those of the latter brown ; and the honey they yield of the colour and consistency of melted rosin. This difference is most striking when the hive is carried in autumn, from the lower parts of the marginal heights, into the Moreland dales, to be filled up with honey ; a practice which, singular as it may appear, has been followed with success.

In the winter of 1782-3, a general mortality took place among the bees of this country. Many bee-keepers lost their whole stock. I remember to have seen in the spring of 1783, twelve to fifteen empty stones in one garden without a single surviving hive.

But the universality of the destruction, uncommon as it was, being such as no one can remember, was not so remarkable as the manner in which it was effected. The bees were observed to dwindle away, by degrees ; though they had plenty of honey in their hives ; at length vanishing ; while still, perhaps,

haps, a considerable quantity of honey remained unexhausted !

A man who has paid some attention to bees, and whose ideas are frequently well-grounded, was of opinion that the effect was entirely owing to the want of a succession of young bees ; under a supposition that the year preceding had not been a *breeding year* ; and that the bees which dwindled away in the spring were the old bees dying of age.

There may be some truth in this opinion ; the unusually backward, and extremely wet spring and summer of 1782, might check the breeding of young bees ; but it is unlikely that it should wholly put a stop to it ; and that not one hive in ten should have bred a single bee. For under this argument the young ones, though few, would, with an ample store of honey, have survived.

In the course of the spring of 1783, an incident led me to a theory which seems to explain the phenomenon more fully.

Being attentive to a *female* fallow which was in blow, I observed that bees were equally busy among its flowers, as they were among

among the male catkins of a neighbouring tree.

This induced me to consider the nature of the materials they collect, and to reflect on whether the different parts of generation, even in hermaphrodite flowers, may not afford them distinct materials. HONEY, it is well understood, is collected from the *nectarium*. WAX may well be considered as a collection of the viscid mucus of the *pistillum*; AS BEE-BREAD appears to be merely an aggregation of the farina of the *stamen*.

It is well understood by bee-keepers in general, and is asserted by Wildman himself, that bees cannot live without *bread*. That they cannot be kept alive with *pure honey alone*, is, I believe, well ascertained. But *honey* which has been pressed hard from a comb containing *bee-bread as well as honey*, is considered as a safe and certain relief to them when their own stores are exhausted.

Admitting that bees require bread, as well as honey, to support them in winter; and admitting that bee-bread is a collection of the staminateous farina of flowers; the phenomenon under notice is easily explainable.

It is well known, that flowers are tenacious of their parts of generation in a rainy season; exposing them with caution. Nor is it mere exposure that fits the stamina for the purpose of the bee. The anthers must be burst by the sun, before the bee can load its thighs with the contained farina; which being exposed, is liable to be washed away, or shook down, by the first heavy shower. Hence the collection of BEE-BREAD, in a moist showery season, must be very precarious and inconsiderable.

But the collecting of WAX and HONEY depends less on the weather. For the flower once open, the bee has free access to the nectary and pistil, whose productions are less liable to a shower than is the farina. Besides, it is, I believe, a fact which is not doubted, that bees collect honey from what are, perhaps, improperly called honey-dews, as well as from flowers.

From these premisses may we not fairly draw the following conclusion?

The spring and summer of 1782 being extremely wet, (see NORF. ECON.) a dearth of

BREAD

BREAD became the natural consequence ; but through intervals of dry weather ; or through a plentifulness of *leaf-honey* ; the collection of HONEY was sufficiently ample. While the bread lasted the bees lived. Nor did they, when it was consumed, die at once, as when their entire store is exhausted. The honey prolonged their lives for a time ; proportioned, perhaps, to their respective ages or constitutions ; the individuals following each other as disease and famine overcame them ; until the whole perished : not through a want of HONEY ; but for the want of a more substantial food : *their* STAFF OF LIFE.

20.

W O L D S.

THE SITUATION and **GENERAL APPEARANCE** of the Yorkshire Wolds have been given. The **OUTLINE**, nearly circular. Their **EXTENT**, about twenty-five miles diameter; containing within their skirts 500 square miles, or about 300,000 acres.

The **MATERIAL** which forms the natural constructure of these hills, is probably a uniform rock of *hard chalk*; rising, in most places, to near the surface.

The **SUBSOIL**, in general a *chalky rubble*, of different depths and contextures, intervening between the rock and the soil.

The prevailing **SOIL** is a *calcareous loam*; varying in depth and productiveness.

The North-East quarter of the Wolds is covered with a thin infertile soil; applied to sheep-walks; much of it being over-run with furze and heath; resembling the inferior downs of Surrey.

On

On the contrary, a shallow vale which extends some considerable distance between Malton and Burlington; including the townships of Duggleby, Kirby, Lutton, Helperthorp, Weaverthorp, Foxholes, Woldnewton, &c. with a small rivulet running through it (delightful summer situation!) enjoys a rich deep loamy soil; strong enough for wheat, and chiefly under the plow.

On the higher Wolds the soil is a lighter loam, from six or eight inches to a foot deep; most of it well adapted to the crops of turneps, barley, and saintfoin; but has formerly lain, and still lies in great quantity, in sheep-walk and rabbit-warren.

The CLIMATURE of these hills is cold: owing in some measure to their present nakedness. The north and east winds pouring in upon them from the sea, and across the Vale from the Moreland Mountains, sweep over their surface without a break.

The SEASONS, here, are somewhat earlier than in the Morelands; but later than in the Vale, or on the Howardian hills. The per-

fect dryness of the substratum of the Wolds is the only advantage they have, at present, in respect to climature.

INCLOSURE. Formerly, the Wolds, whether parcelled out in common field, or disposed in more entire properties, lay entirely open; excepting a few yards about the villages. The East-Wold-Vale still lies in a state of common field. But on the higher Wolds some spirited attempts have lately been made at inclosure.

PLANTING.—Sir Christopher Sykes may, I believe, claim the honor of being the first successful planter upon the Wolds. Attempts had formerly been made; but without success: owing, perhaps, more to the *smallness* and the *thinness* of the plantations than to any other mismanagement.

Sir Christopher, I am well informed, is now contracting, or has contracted with a nurseryman for upwards of five hundred acres of planting; to be finished in ten years: an undertaking which must do him infinite credit.

It is, perhaps, to be regretted, that Sir Christopher's plantations consist chiefly of the *pinus-tribe*; mostly of Scotch Fir; the
most

most worthless of timber-trees. As a skreen to better plants, it may, in bleak situations, have its use.

But the BEECH, to which the soil of the Wolds is peculiarly adapted, would be more acceptable to posterity; and would afford much greater ornament to the Wold Hills. If raised from the mast, with due care, there can be no doubt of its succeeding on these Hills. The Welch mountains abound with it in their bleakest aspects.

Other gentlemen are raising SKREEN PLANTATIONS, and LIVE HEDGES, in a most spirited manner.

In one instance, I observed three rows of hedge-wood planted; about two feet apart; and defended by a row of posts and rails on either side: the bank in which the posts stand appearing to have been formed of the substratum of chalk rubble; a slip of soil on either side being thrown in between the rails, to give encouragement to the hedge-plants. In other instances, the soil has been cleansed by a turnep fallow*. The plants, when I saw them, were vigorous, and in high preservation.

R 4

The

* Nevertheless, a ditch is, I believe, invariably sunk on one side. Gathering the cultivated soil into one

The inclosures, as yet, are mostly large: forty or fifty acres. But should the spirit of planting continue to diffuse its influence over these hills, the size of inclosures will in time be lessened. Should a time arrive when the higher swells shall be crowned with wood, and the intervening vallies be intersected with living fences; forming inclosures of eight or ten acres; the climature of the Wolds will be rendered some degrees of latitude more genial than it is at present; and the productiveness of the soil be doubly that which it has hitherto been.

In giving A SKETCH OF THE RURAL ECONOMY OF THE WOLDS, the following particulars will be entitled to notice :

- | | |
|--------------------------|-----------------------------|
| 1. Estates, | 10. Team Labour. |
| 2. Farms. | 11. Implements. |
| 3. Tenure. | 12. Manure. |
| 4. Rent. | 13. Harvesting. |
| 5. Removal. | 14. Farm - yard Management. |
| 6. Building. | |
| 7. Objects of Husbandry. | 15. Markets. |
| 8. Succession. | 16. Turneps. |
| 9. Manual Labour. | 17. Sheep. |
| | 18. Rabbits. |

I. ESTATES.

one evenly round wide ridge, would, I apprehend, be found much more eligible upon the Wold soil.

I. ESTATES. The lands of the Wolds belong chiefly to *large owners*; being mostly occupied by tenants; few of them, I believe, being in the hands of yeomanry; as they are in the Vale, and a great part of the Morelands.

II. FARMS. Many of them very large, *Mowthorp* and *Coldham*, near two thousand acres each; *Crome* thirteen or fourteen hundred acres; all of them charming arable farms; such as would (*if properly sheltered*) let in Norfolk for fourteen or fifteen shillings an acre.

III. TENANCY. Upon the larger farms *leases* are become common. Some of *seven years*; which is considered as too short a term: some *fourteen*, which good tenants seem to be fully satisfied with.

IV. RENT. Upon the larger farms six to twelve shillings an acre. The rent depends chiefly on whether the tenant has or has not liberty to *break up old sheep-walk*, with which the larger farms mostly abound. These lands in a state of *sward* may not be worth more than five shillings an acre. But having lain, perhaps a succession of ages, in a state of
grass,

grass, they are many of them, for a course of years, worth five times that rent as *arable land*.

No wonder landed gentlemen are tenacious of these old grasslands. They are treasuries, whose keys they would be blameable in delivering up, without a suitable consideration. But they are still more culpable in obstinately depriving themselves and the community of the use of them. The finest farm upon the Wolds is shamefully cramped, through an ill-judged prohibition from breaking up the sheep-walks, of which it principally consists. The tenant cannot winter his sheep upon the farm. He has not a sufficiency of arable land to grow turneps in proportion to his summer feed. It is not paying twenty pounds a-week for sheep-feed which constitutes the evil in this case; but the circumstance of having his flocks scattered about the country, perhaps ten or fifteen miles from his farm, during the winter months,

A *general* permission for breaking up can only be dictated by folly or necessity. A due *proportion* is all that is *at present* requisite,

V. REMOVALS.

V. REMOVALS. The *time* of changing tenants is Ladyday or Mayday. On large farms mostly Ladyday; the wheat on the ground being valued by referees. On small farms, Mayday; the spring crops being likewise sown by the outgoing tenant, and valued with the wheat by referees.

VI. BUILDINGS. A number of new farmeries have of late years been erected upon the Wolds. The plan of *some* of them simple and eligible. The dwelling-house to the west; barns and stable on the north; stack-hovels, for cattle and implements, on the east; forming a square straw-yard, open to the south; saving a high brick-wall, with tall boarded gates; altogether well-adapted to the bleakness of the situation. At the top of Garton hill the dwelling-house is simple and snug; becoming its use and situation; with low leantos; enlarging the roof, for the purpose of collecting rain-water; a plan which ought to be universally adopted on these bleak and waterless hills *.

VII. OBJECTS

* For observations on the Wold PONDS, see the Art. *Drinking Pools*.

VII. OBJECTS OF HUSBANDRY. 1. STOCK, principally, *sheep* and *rabbits*. Few *cattle*, except what are purchased in autumn for the purpose of raising manure, being sold off in the spring; chiefly to the graziers of Lincolnshire. Some *horses* are bred; but the more general practice is to buy in colts at a year old, and keep them until they be three or four; selling them at that age to country dealers; or keep them till five years old, and make them up for the horse-shows.

2. CROPS. Principally *oats*; but much *barley* and some *peas* are grown; and, in the valleys, *wheat*. But, upon the high wolds, the largest farmers, until of late years, bought their bread-corn. The old turf, when newly broken up, throws out immense crops of oats; and is, I believe, in general, equally productive of *rape*. Instances are mentioned, in which the first crop of rape has been equal to the purchase-value of the land. *Turneps*, *clover*, and *saintfoin*, are also Wold-crops.

VIII. SUCCESSION. No regular system of management, with respect to the succession of crops and fallow, is in any part of the Wolds

Wolds to be found in general practice. Upon the thinner-soiled swells the prevailing practice is to break-up, by sod-burning, for turneps; oats two years; barley and grass-seeds, letting the land lie down again to grass. In the vallies, where wheat is grown, turneps, barley, clover, wheat, has of late years gained some footing.

IX. MANUAL LABOUR. The Wolds are thinly inhabited. The resident labourers are few, compared with the work to be done; especially in harvest; when numbers flock to it from the surrounding country. In less busy seasons, the work is done mostly by yearly servants; the few labourers there are being, in winter at least, chiefly employed in thrashing: for which employment the cottagers are sometimes hired by the winter half-year. The wages for thrashing sixpence to eightpence a-day, and board; or fourpence to fivepence, a quarter of oats, and board. The Wold farmers, generally speaking, board all their work-people.

X. TEAM LABOUR. The beasts of labour, principally horses, of the saddle or the coach-horse breed. A few oxen are sometimes used about home.

The

The method of using draught-horses upon the Wolds is singular; whether they be applied to the waggon or the plow.

The Wold waggon is furnished with a pole, similar to that of a coach; and the horses applied in a similar manner as coach-horses. Four horses are the usual team; the driver, on ordinary occasions, riding on the near-side horse behind; generally trotting with the empty carriage.

At plow, the same four horses, in the same harness, are, in strong work, invariably used without a driver! the plowman guiding them with reins: a practice which is, perhaps, peculiar to the Yorkshire Wolds. In lighter work, as in stirring a fallow, two horses only are used.

But, in this case, a practice equally singular is prevalent. A third horse, drawing a light harrow, is fastened on the off side of the plow-horses; the plowman driving the three.

This in breaking up turnep-grounds, or in other *spring* fallowing, is a good practice on dry land; which, by this means, is got perfectly fine at a small expence (the harrow in

in this case being usually drawn by an old worn-out horse, or by a two or three-year-old colt), and immediately as it is plowed, by which means the seed-weeds have full time to spend themselves. But in *winter* and in *summer* the practice is pernicious. A fallow cannot lie too rough in those seasons.

The *hours of work* are long. In spring seed-time, the plow-teams will sometimes stay out from six to six; the plowmen having their dinners carried to them in the field; the horses remaining all day without a bait, and with only a small allowance of corn when they reach the stable! nevertheless, in light work and in a busy season, each horse plows near an acre a day. What breed of *black* horses can stand hardships like these.

XI. IMPLEMENTS. The *waggons* high and aukward. The *plow*, of the old straight mould-board construction. Both of them call loudly for improvement. The *turnwrest plow* is much wanted upon the Wolds.

XII. MANURE. *Yard dung* and *sheep-teatbe* are the principal manures. *Soot* and some *lime* are also in use. *Rape-cake* would, perhaps, be found a valuable manure upon the Wolds.

XIII. HAR-

XIII. HARVESTING. All oats and barley, and much wheat, are mown against the standing-corn, bound in sheaf, and set up in stooks, at the time of mowing. The Wold farmers follow this practice, as being less tedious than that of gaiting, as in the Vale (see Art. VEGETABLE-PROCESS), and less wasteful than that of harvesting loose, in the South-of-England manner.

XIV. FARM-YARD MANAGEMENT. Straw is all consumed in open yards; chiefly in double racks supported by four legs. No cattle fastened by the head; nor any straw (except wheat-straw) bound.

The straw-yard stock is chiefly aged oxen of the short-horned breed, bought at Stanford-bridge and other fairs in autumn; and sold in spring to jobbers or graziers, who sometimes buy them up in winter, on speculation, to be delivered in spring. They leave about twenty shillings a-head for wintering. But much depends upon judgement in buying them in.

XV. MARKETS. *Malton* and *Driffeld*, both of them NAVIGATION-TOWNS, and *Burlington*, a SEA-PORT, are the principal markets for corn.

corn. The Derwent being made navigable many years before the navigation of the Hull was extended to Driffeld, Malton was once the principal market. But, at present, Driffeld, an improving place, takes the lead. At Malton, the corn-trade is in the hands of a few *merchants*, who can generally make their own price. At Driffeld, the buyers are numerous, and mostly *factors*, who purchase by commission. By the low commission of sixpence a quarter, some of the factors are said to make three or four hundred pounds a-year; a striking evidence this of the great quantity of corn which is grown upon these Wolds.

XVI. TURNEPS. The turnep-crop may be said to be still a new thing to the Wolds; not more than of twenty years standing, though singularly adapted to the soil; and notwithstanding it has in Norfolk, whose coast may almost be seen from these hills, been an established object of culture more than a century!

At present this crop is in full estimation, being considered as the most solid basis of Wold-husbandry.

Turneps generally *succeed fward, sodburnt, once plowed* very fleet; or perhaps only rice-balked. No *manure*, and only *once hoed*.

This at first sight may appear to be a loose mode of culture; but not so if we duly consider its basis.

If the turf be of a good age, and the soil of a tolerable quality, no other manure than its ashes is required; and fward which has been sodburnt and only once plowed is much less liable to foul the crop with weeds than land which has been under tillage. Upon the whole, it appears to me to be a practice well-adapted to the Wolds, where old fward is abundant, and where extraneous manures are difficult to be procured.

The *application* of the turnep-crop is almost wholly to sheep, which are folded upon the *standing turneps*; a practice which cannot be defended (see NORF. ECON. Vol. I. p. 297.) and with only *one flock*; a practice which is still more censurable. It is no wonder that the Wold sheep at turneps should be subject as they are to *disorders*: to-day satiated with the tops and the best of the pulp; to-morrow pining over the shells, with only half their fill;

fill; and part of what they pick up weeds and dirt. The next day glutted with a flush of fresh turneps.

If turneps be eaten up *clean*, a *head flock* and *followers* are indispensably necessary to common good management. If it be requisite to eat off turneps with *one* flock of *fat* sheep, one-third of the crop at least ought, in like management, to be left on the ground as manure.

The *fence* of the *sheep-fold* is generally of NET-WORK, made of small cord; the size of the meshes four to six inches; the width or height of the fence about three feet; supported by stakes eight or ten feet asunder. The cost fourpence to fourpence halfpenny a yard. But "net-hurdles" are more commonly *hired* (of rope-makers) than purchased. The price a shilling to eighteenpence a-week for a hundred yards. About home, "bar-hurdles" are sometimes used; but nets, being lighter carriage, are generally used at a distance. For sheep which are hornless, as the Wold sheep invariably are, netted folds are very eligible.

XVII. SHEEP. The *flocks* of the Wolds are some of them very large. One, at least, so high as two thousand; eight or nine hundred of them ewes; the rest wedders and yearlings.

The *breed* is a variety of the long-wooled species. Some of them very handsome, resembling the present breed of Leicestershire, but more active. The wedders will fat at two-sheer (that is, two to three years old) to thirty pounds a quarter. Clip about six pounds of wool: the length ten to thirteen inches.

Some years ago a *cross* of this breed with the large breed of Lincolnshire, was introduced upon the Wolds, to the no small loss of some of the Wold farmers. One of them calculates to have lost seven hundred pounds by a disorder in the head, called the "megrim," which this ill-judged cross were subject to. He returned again to the Wold breed, and the disorder left his flock.

Every country appears to have a naturalized stock—of sheep at least—belonging to it. By neglect this stock will degenerate.

By

By care it may be improved; either by the fairest of its own individuals, or by those of a *kindred variety*; not by a *foreign species*.

XVIII. RABBITS. The Wold warrens are numerous, and some of them very extensive. COLDHAM-WARREN is at present, I believe, the largest upon these Wolds; and, probably, the most valuable warren in the Island. The Coldham *farm* contains about nineteen hundred acres; and, speaking generally, it is all *warren*: not, however, wholly appropriated to *rabbits*, a flock of six to eight hundred *sheep* being kept within the warren-walls; principally, however, on one side of the warren, away from the burrowing-grounds.

This appears to be a practice peculiar to the Wolds*, where better soil is appropriated to rabbit-warren than is perhaps in any other part of the Island. The Coldham-warren, in point of *soil*, is most of it worth ten to twelve shillings an acre; some of it fifteen or sixteen shillings †. As these better

S 3

parts

* Of Yorkshire and Lincolnshire, whose hills likewise abound much with rabbit-warren.

† But the present bleakness of the *situation* renders it of little more than half the value.

parts become mossy, they are inclosed by a sod-wall, the surface pared and burnt, and the soil broken up for arable crops. Having afforded a succession of crops of corn, turneps, &c. they are sown with grass seeds, and again thrown open to the rabbits and sheep.

In 1783 there were about two hundred acres of this farm under the plow, besides some little sheep-walks, which lay without the warren-walls. The *warren* therefore at that time contained fifteen to sixteen hundred acres: and adjoining to Coldham are two more considerable warrens; so that there are perhaps three or four thousand acres of tolerably good land, lying together, and appropriated principally to rabbits; a circumstance which it would be difficult to equal.

To give a general idea of the MANAGEMENT of the WOLD WARRENS, the following division of the subject will be requisite:

- | | |
|-------------|-------------|
| 1. Soil. | 4. Species. |
| 2. Burrows. | 5. Taking. |
| 3. Fences. | 6. Markets. |

1. SOIL,

1. SOIL. There is a disadvantage in stocking a *rich* soil with rabbits: a flush of grass, after a dry season, is found to throw them into a scouring; which sometimes carries off great numbers.

2. BURROWING-GROUND. Upon the high Wolds the burrows are mostly on the *sides of hills*: at COLDHAM, principally in one deep valley; whose sides are steep, giving the rabbits great freedom in working. The soil in this case about eight or ten inches deep; under this a chalky rubble of some inches thick, lying on a chalkstone rock. The burrows are in the subsoil, between the soil and the rock, and chiefly toward the tops of the hills*.

But at DRIFFIELDGREETS, near Driffield, where there are two large warrens, the surface is a *dead flat*; nevertheless the warrens are well-stocked and productive; a proof that a flat surface may, in some cases, be profitably stocked with rabbits. The soil, in this case, a light sand or gravelly loam.

S 4

In

* Thousands of daws build their nests in these burrows, to the great annoyance of the rabbits.

In stocking a warren, whether the surface be flat or hilly, ARTIFICIAL BURROWS are made to reconcile the rabbits to the ground, and to preserve them from vermin until they have time to make their own burrows. In making these artificial burrows, an improvement has lately, I believe, been hit upon. They are bored with an AUGER of a diameter large enough to make a burrow of a sufficient width. In a level warren, these AUGERS may from time to time be found useful.

3. WARREN-FENCES. The common fence upon the Wolds is *sodwall*, capped with furze, or of late with stiff straw, forming a kind of thatch *. The warrens near Driffeld are fenced with *paling*; an expensive fence in the outset, and always under repairs. A *brook*, though ever so deep, is found to be insufficient as a fence against rabbits: one side of Driffeldgreets-warren is bounded by a brook; but it is nevertheless fenced with *paling*. When the rabbits can evade this, they readily swim the brook.

4. SPE-

* Reed would be admirable in this intention; and might perhaps be had at a reasonable cost from the fens of Holdernefs, or those at the foot of the Vale of York.

4. SPECIES OF RABBITS. Until of late years, the common *grey* rabbit—probably the native wild rabbit of the Island—was the only species. At present, the *silver-haired* rabbit is sought after, and has, within the few last years, been introduced into most warrens †. The skin of the grey rabbit is *cut*; that is, the “wool” is pared off the pelt as a material of *bats*: whereas that of the silver-haired rabbit is *dressed* as *fur*; which, it is said, goes principally to the East-Indies. The colour, a black ground, thickly interspersed with single white hairs. The skins of this variety sell for about four shillings a-dozen more than those of the common sort; a sufficient inducement this for propagating it.

5. METHOD OF TAKING RABBITS. The Wold-warreners have three ways of catching their rabbits:—with *fold-nets*—with *spring-nets*—and with “*tipes*,” a species of *trap*.

The *fold-nets* are set about midnight, between the burrows and the feeding-grounds; the rabbits being driven in with dogs, and kept inclosed in the fold until morning.

The

† Some of the Lincolnshire warrens, it is said, are already wholly stocked with this variety.

The *spring-net*, when used, is, I believe, generally laid round a hay-stack, or other object of inducement for rabbits to collect in numbers.

The *trap* is a more modern invention. It consists of a large pit or cistern, formed within the ground and covered with a floor; or with one large falling-door, with a small trap-door toward its center, into which the rabbits are led by a narrow muce.

This trap, on its first introduction, was set mostly by a hay-stack—hay being at that time the chief winter-food of rabbits; or on the outside of the warren-wall, where rabbits were observed to scratch much, in order to make their escape. Since the cultivation of turneps as a winter-food for this species of stock has become a practice, the situation of the trap has been changed.

Turneps being cultivated in an inclosure within the warren, a trap is placed within the wall of this inclosure. For a night or two the muce is left open and the trap kept covered (with a board or triangular rail), in order to give the rabbits the requisite haunt of the turneps; which having got, the trap is bared, and the required number taken.

In

In emptying the cistern the rabbits are *sorted*: those which are fat and in season are slaughtered; those which are lean or out of condition are turned upon the turneps to improve.

At the close of the season the bucks and the does are *sorted* in a similar way: the bucks are slaughtered; the does turned loose to breed. One male, I understand, is considered as sufficient for six or seven females; and the nearer they can be brought to this proportion, the greater stock of young ones may be expected; it being the nature of the males (*unnatural* as it may appear) to destroy their young, more especially perhaps when their proportional number is too great.

Great precaution is requisite in the use of these traps. If too many rabbits be admitted at once, and the cistern be kept close covered only for a few hours, suffocation and inordinate heat take place, and the carcases, at least, are spoiled. Many thousand carcases have been wasted through this means—The traps are therefore watched; and when the required number are caught, the muce is stopped, or the trap covered,

Some

Some idea of the *produce* of the Wold-warrens may be gathered from the great numbers which are frequently slaughtered at once. Five or six hundred couple have not unfrequently been slaughtered in one night : and, *it is said*, that when the two Driffeld warrens lay together, there was once an instance of fifteen hundred couple being killed at one slaughter.

6. MARKETS FOR RABBITS. York, Hull, and the neighbouring towns, for carcases : Stanford-bridge and Malton, for skins ; which are cut by furriers who reside at those places, and who find a market for their wool in the hat-manufactories of London and Manchester.

Sometimes the skins and carcases are sold together, to hucksters, or other wholesale dealers. The average price for the season about two shillings a couple. The price of carcases, in the neighbourhood of the warrens, eightpence to tenpence a couple.

H O L.

21.

HOLDERNESS.

THIS IS the only District of the county I have not been in. I have repeatedly looked over its surface, and been upon its borders; but never went over its area. I purposed to have gone over it this year (1787), but the Vale employed my whole attention during summer; and the extreme wetness of the autumn would have prevented me from visiting a fen country at that season, had leisure permitted it.

The objects of husbandry, and the means of obtaining them, are, I have always understood, similar to those of the Vale of Pickering: nevertheless, Holderness may have its partial excellencies; as almost every District has, in a greater or less degree.

The

The north-west quarter is appendant to a line of marginal villages ; situated most desirably on the skirts of the Wold hills ; but no way excellent, I believe, in their plan of management. Nevertheless, the *coast* of Holderness may merit survey.

CLEVELAND.

22.

CLEVELAND.

CLEVELAND is small, comparatively with the other Districts of East Yorkshire. To the east it terminates in a broken country; mixing with the northern margin of the Moreland hills.

The **OUTLINE**, if the broken country about *Gisborough* be cut off, is nearly oval. The **EXTENT** of the greater diameter being about fourteen, of the shorter about ten miles; containing within its area somewhat more than one hundred square miles; or about seventy thousand acres.

The **SURFACE** is nearly plain, but perfectly free from collected water; its principal brook the Leven, running in a valley some feet below the general surface.

The **SOIL**, almost invariably, a tenacious clay. Good wheat and bean-land.

The

The OBJECTS OF HUSBANDRY are *corn, butter, bacon, rearing cattle, and horses*; varying but little in its objects from the VALE OF PICKERING; excepting that CLEVELAND is more a *corn country*.

A uniformity of situation and soil is generally productive of a uniform system of management; more especially in a country like Cleveland, which has been long in a state of inclosure; and a minutial detail of its *arable process* might be interesting. But the Vale of Pickering having furnished materials more ample and more interesting than I expected, I have bestowed on that alone more attention than I had set apart for the county.

Some peculiarities of the Cleveland practice have been already mentioned. One which marks it strongly, and which distinguishes it from every other District I have observed in, remains to be noticed.

The TEAM of Cleveland is, invariably, *three horses and a cart*. Notwithstanding the deepness of the roads in a wet season, there is scarcely a *waggon* or a *long team* in the country. The three horses are, invariably,
drawn

drawn two-and-one; namely, one horse in the shafts; the other two in a pair before it: the whole being guided by leathern reins, and driven with a long-thonged whip, in the coach manner.

This practice has probably arisen from the circumstance of coals and lime being fetched into Cleveland from distant parts of the county of Durham. The latter, which has long been the sheet-anchor of the Cleveland farmers, is drawn, into the interior parts of the District, more than thirty miles; the teams going and returning without a rest, excepting transient baits upon the road.

The rule, when going empty, is to trot two miles and feed one; the driver riding in the carriage the two miles, and walking by the side of his horses the one; baiting them with hay, out of his hand, as they go along the road. When loaded, he keeps feeding whenever he finds the horses will eat a mouthful of hay. Corn is also carried in these journies, and given in bags hung upon the horses' heads; in the manner in which hackney coach-horses are fed upon the stands

in London. Horses thus used will stand travelling thirty miles every day. The breed, strong, active, coloured coach-horses.

The Cleveland team treads the road evenly; and is the stiffest; the most handy; and, for a *level country* and *long journies*, is, perhaps, altogether the most eligible team invention can suggest.

MORELANDS.

MORELANDS.

THE SITUATION of this District was given in describing the COUNTY at large. And, in giving a more minute description of the Vale of Pickering, the Morelands are mentioned as bleak mountains, covered with heath, and intersected by CULTIVATED DALES. These dales have been already noticed as appendages of the Vale; so far as they are noticeable. What I propose under the present head, is to give some account of the MOUNTAINS and their UNCULTIVATED VALLIES.

The CLIMATE of the Morelands is extremely bleak; several degrees of latitude colder than the Vale of Pickering; where rain, or perhaps open weather, will frequently prevail, while the Morelands are covered with snow.

The EXTENT of the Eastern Morelands, including the hills of HAMBLETON, is thirty to forty miles of length, by ten to fifteen

of breadth. Excluding the CULTIVATED DALES, &c. they may contain from three to four hundred square miles, or from two to three hundred thousand acres, of UNCULTIVATED HEATH.

The MATERIALS of these mountains are principally *free-stone*, (of a singularly fine grain) which too frequently rises to the surface; lying in some places above-ground in blocks; some of them of considerable size. A thin seam of *coal* has been found, and still continues to be found, in different parts of these hills, at no great depth from the surface. *Iron* is forged near Ayton; and *copper* has been smelted near Hackness. But *allum shale* is the most valuable material of the eastern Morelands; which alone, I believe, furnish the Island, and a great part of Europe, with allum.

The immediate subsoil is generally *sand*; which, in some places, is formed into a pan or crust; resembling rusty half-decayed iron rather than an earthy substance: being almost as impervious by water as an iron vessel.

The

The soil invariably a *black moor*;—apparently a mixture of vegetable mould and sand; resembling the moory soil of fens.

Linneus, I think, calls this species of soil the *depauperated* soil of heaths; but on what grounds I know not. The moor of fens appears obviously enough to be composed of the decayed roots and other parts of vegetables, with a greater or less proportion of sand and mud, washed in among them while in a state of growth. But how a similar matter could be formed on the tops of mountains is less obvious. Nevertheless MOUNTAIN MOOR has every appearance of a VEGETABLE MOULD.

This mould, which covers a principal part of the mountains of the Island, appears to me a most interesting subject of investigation.

It varies greatly in regard to depth. On the “low moors,” where it has probably been repeatedly pared off for fuel, it barely covers the sand or gravel of the subsoil: but upon the higher more distant swells the covering of soil is thicker; frequently from one to two feet deep of what is called “fat moor.” In the vallies, particularly towards their heads, are peat bogs of several feet deep;

buried in which, trees of great size have sometimes been found.

The NATURAL PRODUCE of the more lofty swells of these mountains—termed provincially, the “high moors”—is principally *heath*, interspersed with patches of “*bent*,” (a species of *rush*;) together with the common *rush* and other aquatics in the vallies, and on the bogs, with which even some of the swells abound.

But at the feet of those swells; and on the face of the cliffs which terminate them to the south; as well as upon the top of the marginal heights; which, when they shoot far to the northward, as between Newton and Coldthorn, are covered with black soil and heath;—a number of the better grasses, with a variety of other plants, may be found growing among the heath, notwithstanding the situation, which, in point of bleakness, is little inferior to the “Moorheads.”

A list of these hardy plants may have its use.

| <i>Provincial.</i> | <i>Linnean.</i> | <i>English.</i> |
|--------------------|---------------------------|---------------------|
| Common ling, | — <i>erica vulgaris</i> , | —common |
| heath. | | |
| Crow-ling, | — <i>erica cinerea</i> , | —fine-leaved heath. |
| | | Wire |

Provincial. *Linnean.* *English.*

Wire ling,—*erica tetralix*,—cross-leaved heath.

Bent,—*juncus bulbosus*?—heath rush.

Seaves,—*juncus effusus*,—soft rush.

Moor palms,—*carices*—sedges.

Gale,—*myrica gale*,—sweet gale.

Juniper,—*juniperus communis*,—common juniper.

Cranberry,—*vaccinium oxycoccos*,—cranberry.

Bleaberry,—*vaccinium myrtillus*,—common whortleberry.

White clover,—*trifolium repens*,—creeping trefoil.

Cheese-cake grass,—*lotus corniculatus*,—birds-foot trefoil.

Bent grass,—*nardus stricta*?—mat grass?

aira fluxuosa,—heath air-grass.

aira cærulea,—purple air-grass.

aira præcox?—early air-grass •?

anthoxanthum odoratum,—vernal.

briza media,—trembling-grass.

cynosurus cristatus, crested dogs tail.

festuca duriuscula,—hard fescue.

festuca myurus?—wall fescue?

lolium

* It was late in summer before I made this collection. Some of the early plants had seeded, and their specific characters were of course become doubtful.

Provincial. Linnean. English.

lolium perenne,—ray-grass.

dactylis glomerata,—orchard-grass.

holcus mollis,—couchy soft-grass.

euphrasia officinalis,—common eye-bright.

orobus tuberosus,—bulbous pea.

galium verum,—yellow bedstraw.

galium montanum?—mountain bedstraw?

scabiosa succisa,—meadow scabious.

rumex acetosella,—sheep's sorrel.

prunella vulgaris,—self-heal.

tormentilla erecta,—common tormentil.

potentilla reptans,—common cinquefoil.

cistus helianthemum,—dwarf cistus.

thymus serpyllum,—wild thyme.

poterium sanguisorba,—upland burnet.

spirea filipendula,—dropwort.

achillea millefolium,—milfoil.

hypericum perforatum,—common Saintjohnswort.

carlina vulgaris,—carline thistle.

*carduus palustris**?—marsh thistle?

pteris aquilina—brakes.

The stock of the Morelands is principally *sheep*. Upon the "high-moors" they are the only stock. On the lower borders, and on the margins of the cultivated dales, young *cattle* are kept upon them a considerable part of summer. But, in a general light, *SHEEP* may be taken as the stock of the Morelands ; and though they be thinly stocked, the number on the whole is considerable.

In stocking these mountains with sheep, the general calculation is, I believe, one sheep to ten acres. The number therefore kept, on the foregoing calculation, is twenty to thirty thousand.

These sheep live entirely upon the "moor," from their being a year old until the time of their being sold off ; which, formerly, was not until they were four or five years old.

The yearly profit of a Moreland sheep (very small, see *Art. SHEEP*), allowing for attendance

* This thistle has no other specific difference which I have been able to discover, from the *carduus palustris*, except the thickness of its stem ; which, upon these dry barren bleak hills, will sometimes be equal in size to the largest walking cane. There is a variety of it with white flowers.

attendance, hazard *, salving, and a little hay in winter when the heath is buried in snow, may be laid at two shillings and sixpence a-head †.

Consequently the YEARLY PRODUCE OF THE HERBAGE, at present, is THREEPENCE AN ACRE ; at which rate much of it was valued by the Commissioners under the Pickering Bill of Inclosure ‡.

The IMPROVEMENTS which have been attempted among these hills require now to be mentioned.

The

* A Moreland farmer reckons that if half the number he breeds reach a market he has tolerable luck.

† This calculation is made on the advanced price which sheep have borne, on a par of the last ten years. There are who assert that if attendance were rigidly calculated, no neat profit whatever would arise from keeping sheep on these heaths. But the number of *little fortunes* which have been made in the Moreland dales, principally, it is believed, by keeping sheep, contradict this assertion.

‡ Besides the *herbage*, the *fuel* which is pared off the surface and cut out of the bogs, may be considered at present as a species of PRODUCE.

The Pickering highmoor allotments, containing twenty acres or upward, are now selling for ten pounds each. The fee-simple of three of these allotments, containing near one hundred acres, were purchased the other day for thirty pounds.

The late SIR CHARLES TURNER ranks highest as an improver of the Morelands. But Sir Charles's site of improvement is not a fair specimen of the two hundred thousand acres of uncultivated heath which are the immediate subject of this article.

Keldale, the principal site, is a valley issuing out of Cleveland. The bottom, which has formerly been inclosed, is a rich loam of great depth; but had been rendered unproductive for want of draining. The sides of the valley are variously soiled; mostly bog, or a fat moory soil, formed probably by springs, with which the whole valley abounds, and which having trickled down its sides from age to age, have clad them in vegetable mould. Keldale, at the time Sir Charles undertook its improvement, was a *neglected valley*, whose *soils* were full of *intrinsic riches*, and required nothing but an improvement of their *subsoil* to render them highly productive.

Had the improvements of this valley been set about with deliberation, and carried on with judgement and firmness, the profits arising from it would have been exceedingly great. Even in the eccentric way in which they

they were conducted, the improvement must have greatly exceeded the expence. In the spring of 1783, when I saw them, Sir Charles had let off one farm of one hundred and fifty pounds a-year (containing about one hundred and fifty acres !) and had then built, or was building, three or four more substantial farm-houses.

Kempswidden, the other site of Sir Charles's improvements, is more nearly allied to our present subject. This is a high ridge of mountain which forms one side of the valley of Keldale. The soil, partly black moor ; in part, of a brown loamy nature ; altogether, much superior in natural quality to the "high-moors ;" and equal, if not superior, to any extensive plot of uncultivated heath on *this* side of the Morelands.

In 1783, the principal part of this hill had been inclosed with stone-walls ; and part of it had, in the outset, been unfortunately broken up for *corn*. But the rich loams of Keldale being found to be better adapted to arable crops, this was prudently laid down to *grass* ; a species of crop much better suited than corn to such a soil, in such a situation.

The

The inclosing of Kempswidden was evidently premature. Had Sir Charles begun at the bottom of Keldale; climbing by degrees up its sides; reaching in due process of time the tops of the hills; what amusement and profit might have been reaped from the undertaking!

The ATTEMPTS which have been made on this side of these mountains remain to be noticed.

About twenty years ago the inclosure of MIDDLETON, whose parish extends into the Morelands, gave freedom to the spirit of improvement.

The *site* which was principally chosen for the essays which have been made, were the lower skirts of the Moreland hills, under the northern steep of the limestone heights. This situation was in a degree of shelter, was near the cultivated country, and the soil in that valley is better than it is higher up the sides of the hills.

The *principle of improvement* was to extend the cultivated country into the Morelands. *Corn* was of course the main object. The *barren wastes* were considered as *grass-com-*
mans;

mons; which usually are, and generally ought to be, converted into *arable land*, and kept in that state for a course of years after their inclosure.

The *method of breaking-up* was either by paring and burning, or by fallowing; which latter was performed in a singular manner. The heath being previously singled off, the land was plowed, and suffered to lie unstirred in rough furrow for *two years*, in order to give the roots of the heath time to rot. The *third year* it was stirred as a *fallow*; and the *fourth year* cropped.

The *manure* used, invariably lime; which is burnt in quantity near the site of improvement. The quantity set on, three to six or seven chaldrons an acre.

The *crops* wheat, rye, oats, potatoes, turneps. Red-clover, it is said, does not flourish: it will rise very well from the seed, but generally goes off the first winter. And ryegrass has been cautiously used, lest it should foul or impoverish the land!

The *result* of these experiments, some of them on a pretty large scale, is, some small
for-

fortunes have been sunk, and some larger ones have been injured. I have not come at any thing like proof of one instance in which the *improvement* has been adequate to the *expence*.

GENERAL OBSERVATIONS. From these premises we may safely infer, that the two hundred thousand acres of land under notice are unimproveable; or that the attempts at improvement which have hitherto been made have been ill conducted; or that the principle of improvement has hitherto been erroneous.

Unprepared as I am with self-practice in the cultivation of these wastes, it would be rashness in me to dictate a general plan of improvement; but having some general knowledge of improvements of this nature, and having bestowed some considerable share of observation and attention on the District under consideration, it might be wrong to suppress the reflections which have occurred to me respecting its improvement. In a kingdom whose limits are not extensive, two hundred thousand acres of surface becomes an object of national importance; and on whether

ther they lie in a state of waste or productiveness, the welfare and happiness of many individuals may be dependant.

The PRINCIPLE OF IMPROVEMENT is what I shall more particularly speak to ; and in doing this, I shall keep the HIGH-MOORS—not the heathy upper margin of the limestone heights—principally in view.

It appears to my mind that a man who attempts *at present* to crop these heaths with *corn*, must either be in natural abilities extremely deficient ; totally uninformed in rural affairs ; or unfortunately gifted with more genius than judgement. To begin with *carrying off* the means of productiveness in the shape of *grain* (which the cultivation of corn implies) from a soil which it is to be feared naturally contains them in very inconsiderable quantity, is irreconcilable with common sense.

The ARTIFICIAL PRODUCE which strikes me as eligible to be propagated at present on these heaths, is *wood* and *herbage*.

PLANTATIONS. There are evidences, but no proof, of these hills having been formerly covered with wood. The trees which are still

still found in the peat-bogs are a pretty strong evidence. And part of these hills being included within the ancient *forest* of Pickering, is a corroborating circumstance.

That trees, if properly chosen and properly managed, would grow on these hills, is, I believe, beyond dispute. And I am clearly of opinion that, *if they be improveable*, planting is the first step which ought to be taken toward their improvement. Woodlands, if once extended, would not only afford immediate shelter to stock; but would in all human probability change the climate of these bleak swells so far as to give due encouragement to the herbage which might be cultivated upon them.

Where the surface is strewed with large stones, planting seems to be the only probable mean of improvement. Where the surface is free, screens of wood would be principally wanted.

The *Scotch fir* and the *birch* might be employed to break off the North and the Easterly winds. The *Norway spruce* and the

larch, and in all probability the *oak*, might with due care be reared in the more genial aspects.

Much would depend upon *management*.— In Keldale and on Kempswidden, the pine-tribe and oaklings were dibbled in among the standing heath. No wonder they miscarried. The ground should be trenched with the spade; or be prepared with the plow; and the plants be put in with the nurseryman's best care. Not singly or widely scattered: but in numbers and in close order.

There is a natural warmth in vegetable as in animal life. One tree is raised with difficulty in any situation which is inclined to bleakness; but plant a number in close order, and the difficulty is overcome. They not only create among themselves, by their natural warmth and perspiration, a fresh atmosphere; but assist each other in withstanding the attacks of the winds and other enemies.

HERBAGE. *If these hills be improveable by husbandry*, the principle of improvement appears to me to be that of removing the *beath*,
and

and replacing it with *herbage* adapted to such *stock* as is best suited to the soil and situation.

Sheep and *rabbits* are the stock best adapted to these hills; and the shortest and least expensive way of bringing them into a state of SHEEP WALK and RABBIT WARREN is, on this principle of improvement, the *first* thing required.

The Heath, it is more than probable, cannot be overcome without *cultivation*. A similar degree of *tillage* would probably be requisite for herbage as for corn *.

The SPECIES OF HERBAGE would be the *grasses*, the *legumes* †, and the *brassica-tribe*. The hardiest of the two former might be

U 2

seen

* In Derbyshire it has been found that a thick covering of *lime* alone is equal to the destruction of the heath, (*without breaking up the soil*), and to the production of a turf of rich herbage. But I have heard it doubted, by those who are acquainted with the practice, whether in that case the improvement be adequate to the expence; the quantity of *lime* requisite to produce the effect being great. However, on the skirts of the hills under notice, to which *lime* might be carried at a moderate expence, the experiment would certainly be worth making.

† *Legumes*.—The clovers, trefoils, vetches, &c. &c.

seen in the foregoing list. The *turnep* and the *rape* might be chosen from the last. The *rye* and the *oat*, if fed off or mown for hay while in a state of *herbage*, might be found eligible.

The MANURES which present themselves are *lime*, which might be had in any quantity, and within a short distance compared with that which it is carried in other Districts. *Asbes* of the peat-bogs, and the fat moor, where this is of sufficient depth, might likewise be had at will. Even the *fat moor*, unburnt, it is more than probable, would afford a salutary manure, if properly applied. I have observed instances, in which having been thrown upon the surface, (as in cutting through it for a road), it has in a short time become overgrown with a turf of fine herbage. *Earths*, if properly sought for, might, it is highly probable, be found with natural qualities adapted to the improvement of the moory soil.

Another species of improvement, which it is probable might be prosecuted with success, is that of cutting off the springs which overflow the sides or the bottom of hills, and
under.

underdraining, if requisite, the bogs they have formed; by which means many fertile patches might, it is probable, be produced.

Another species of melioration applicable to the reclaiming of these wastes is *watering*—flooding. I have observed where the waters of hollow-ways, &c. break out over the black earth, a covering of grass takes place. Almost all the bottoms of the vallies and skirts of the hills might be flooded with the springs and rivulets which lie above them.

Those who are unacquainted with the practice of flooding will doubt the efficacy of the waters of *springs* and *clear* rivulets; while those who are versed in it would smile at their want of information. I have seen waters perfectly limpid produce the happiest effect. It is not the *colour*, but the *intrinsic quality*, of water which fits it for the purpose of melioration. Any water, which is not in its nature poisonous to plants, has, if properly thrown over grassland in the spring and summer months, a beneficial effect. Whether the springs and rivulets in question

would or would not have a beneficial effect on the lands which lie below them, might easily be put to the test.

By application and due attention upon the spot, other probable means of improvement might present themselves.

That the principal part of these hills might be brought into a state of grass of no mean productiveness, appears to my mind indisputable*. But whether any means of improving

* An instance strongly corroborative of this opinion may be produced. A labourer who lived in "Blakay-House,"—situated near the highest swell of these mountains,—inclosed a patch of moor adjoining to his house: a fair specimen of "turf moor:"—namely, a dry black stoney soil, lying on a sandy subsoil. Nevertheless, in 1783, when this improvement accidentally caught my eye, he had converted the principal part of it, perhaps about two acres, into a piece of *very productive grassland*. He told me that he had tried *corn* of all sorts upon it without success. It came up very well, but generally died away in weaning from the kernel. Nor did *potatoes* ever do well. He had one year a very fine prospect; but a cold high wind cut them off entirely. He was so fully tired of every thing but *grass*, that upon a stripe he was about to lay down, he only meant to throw a few oats by way of encreasing the swath of hay, intending to mow them off with the rest of his close. His *manure*—lime, ashes, and cow-dung; doing a patch well over every year.

ing can be hit upon which would render the improvement greater than the expence of obtaining it, experience alone can shew; and *individuals* ought to enter cautiously into the project.

But, viewed in a *national* light, an improvement of this kind, whether individuals gain or lose by the prosecution of it, is desirable. If through the means of a soil which lies waste, of fossile substances which lie useles, of fire which may be had at will, and of water which nature has provided upon the spot, lands which are infertile can be rendered productive, without robbing those which are already in a state of productiveness; the reality of the acquisition, to the state, cannot be doubted.

In the center of these hills, among their highest eminences, lies a plot of land which belongs exclusively to the Duchy of Lancaster. Might it not be laudable in Government to direct some attention toward its improvement? The two hundred thousand acres of waste which lie immediately round it would not be the only object in view. Twenty times the quantity of similar surface lies waste within the kinghom.

fact the wife within the kingdom. Twenty times the quantity of English iron would not pay the only cost in view of waste which we must take to reach the government. The two hundred thousand sent meant to direct some attention toward its improvement, which is not a small matter.

L I S T
O F
R A T E S, &c.

BUILDING MATERIALS.

OAK TIMBER, for buildings, 14*d.* to 18*d.* a foot.

Ash timber, 1*s.* to 1*s.* 6*d.* a-foot.

“ Stock ” bricks, 21*s.* a thousand, and

“ Water ” bricks, 15*s.*

Pantiles, 45*s.*

Ridge-stones, 5*d.* a foot.

Copings of gables, 5*d.*

Gable brackets, 2*s.* 6*d.* each.

Lime, 7*s.* to 9*s.* a chaldron.

Dimensions of bricks, $9\frac{1}{4}$ — $4\frac{1}{4}$ — $2\frac{1}{2}$ inches.

————— pantiles, 14 by 10 inches.

C A R.

298 LIST OF RATES.

CARPENTER'S WORK.

Journeyman's wages, 14*d.* and board, or 2*s.* a day.

MASON'S WORK.

Journeyman's wages, 16*d.* and board, or 2*s.* a day.

Labourers ——— 10*d.* ——— or 1*s.* 6*d.* a day.

BLACKSMITH'S WORK.

Common heavy work, 4*d.* a lb.

Traces, draught-irons, &c. 6*d.* a lb.

Horse-shoes, 4*d.* each—removes, 1*d.* each.

Laying a share or coulter, 8*d.* to 1*s.*

Sharpening ——— 1*d.*

WOODLANDS.

Ship-timber at the ports, 3*l.* to 3 guineas a ton.

Carriage of timber, about 9*d.* a ton a mile.

“Crambles”

"Crambles"—firewood boughs, 10s. to 12s. a load.

Bark ready chopt for the tanner, 10s. 6d. a quarter.

Peeling bark, about 20d. a day.

——— and chopping 3s. to 3s. 6d. a quarter.

Spray faggots, 6s. to 8s. a hundred of six scores.

Binding such faggots, 2s.

Felling and binding furze faggots, 4d. a score.

Grubbing ————— 6d. a score.

Grubbing without binding, 20s. to 30s. an acre.

PLANTATIONS.

Price of oziars, 1s. a bundle of a foot diameter, or $1\frac{1}{4}$ yard in circumference.

FENCES.

Price of seedling white thorn, 5s. a thousand.

——— transplanted ——— 7s. to 8s. ———

Setting posts and two rails and winding them with thorns, 4d. to 5d. a rod of 7 yards.

Stake-

300 LIST OF RATES.

Stake-and-edder hedge, 3*d.* to 4*d.* a rod of 7 yards.

Fence-walls; raising stones, carriage, and walling, 1*s.* a rod of 7 yards.

TEAM LABOUR.

Hire of four horses and a man, 8*s.* to 10*s.* a-day.

Carriage of coals, about 8*d.* a chaldron a mile.

YEARLY SERVANT'S WAGES:

Head man, 13 to 15*l.*

Second ——— 8 to 10*l.*

Dairymaid, 5 to 6*l.*

DAY-LABOURER'S WAGES.

Man in winter, 8*d.* a day and board.

—— in summer, 1*s.* to 18*d.* ———

Woman, in autumn and spring, 6*d.* a day, no board.

—— in hay-time, 9*d.* ———

—— in harvest, 10*d.* ———

M A-

YORKSHIRE.

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M A N U R E.

Price of lime, 7s. to 9s. a chaldron.

Burning lime—raising stones, breaking, felling, and helping to draw, 18d. to 20d. a chaldron.

Get on the north-side of the Vale (materials hard), from $2\frac{1}{2}$ to 3 chaldrons of lime for one of coals.

— on the south-side (stone softer), 3 to $3\frac{1}{2}$ for one.

Set on 3 to 4 chaldrons an acre.

S O I L - P R O C E S S.

Underdraining with wood, 2 to 4 feet deep, 6d. for a rod of 7 yards.

Paring with the breast-plow, 10s. to 14s. an acre.

Drying and burning fods, 5s. to 6s. an acre,

Spreading ashes, 2s. an acre.

Whole expence, 18s. to 21s. an acre.

H A R.

LIST OF RATES.

HARVEST-PROCESS.

Mowing grass, 16*d.* a day and board; or 21*d.* to 2*s.* 3*d.* an acre.

Mowing corn, 1*s.* to 14*d.* a day and board.

BARN-LABOUR.

Thrashing wheat, 3*d.* a flook: or 2*s.* 6*d.* to 3*s.* a quarter.

GRASSLAND.

Gait of a cow from Mayday to Michaelmas, 40*s.* to 45*s.*

P R O.

PROVINCIALISMS.

THE DIALECTS OF YORKSHIRE
are strikingly various.

The provincial language of *Cleveland* differs more widely, in some respects, from that of the *Vale of Pickering*, though situated only twelve or fifteen miles from each other, than the Dialect of the Vale does from that of Devonshire, which is situated at an opposite extreme of the kingdom. The Eastern Morelands are a barrier which formerly cut off all communication between the two Districts. But this cannot be the only cause of difference: the language and the manners of their respective inhabitants appear to have *no natural affinity*: they are, to present appearance, as distinct races of people as if they were descended from different roots. The pronunciation of the Vale bears a strong analogy to the *Scotch*; while that of Cleveland,
which

which lies immediately between the Vale and Scotland, has little or no affinity to the Scotch pronunciation.

About *Leeds*, the language still varies : it is there strongly marked by a *twang* in the pronunciation. In the Vale of Pickering the word *cow*, for instance, takes the *close* sound “*coo* ;” about *Leeds* it becomes “*caw* :” the *a short*, as in *can* ; the *w* being articulated as in the established pronunciation of the word.

In the more extreme parts of *West Yorkshire* the dialect is characterized by an *openness* or *broadness* of pronunciation, very different from the rest of the county. The language even of *Wakefield* and that of *Leeds*, though these two places are situated within twenty miles of each other, are in many particulars less analogous than those of *Scotland* and the *Vale of Pickering*.

The dissimilitudes here mentioneed, however, relate more to PRONUNCIATION, or what is less properly termed *accent*, than to WORDS. Nevertheless, in words, the different Districts of this extensive province vary considerably both in *identity* and *number*.

PROVINCIAL WORDS are either *corruptions* of the established language, or *native words* descended from the ANCIENT LANGUAGE of the province they are spoken in. Hence in RECLUSE DISTRICTS we must expect to find the greatest number of *genuine provincialisms*; — OF ANCIENT VOCAL SOUNDS.

THE VALE OF PICKERING is singularly circumstanced in this respect. The peculiar recluseness of its *situation* has been described; and being in a manner wholly agricultural, its *connexions* are inconsiderable. Had it not been for the influx of words and fashion which *Scarborough* has annually drawn into it, this secluded Vale must inevitably have been, in language and manners, a century at least behind every other District of *this* kingdom situated equally near its center.

THE MORELAND DALES, which are in reality appendages of the Vale, have been still more effectually cut off from all *converse with strangers*. Their situation is so reclusive, their soil in general so infertile, and their aspect so uninviting, that it is probable neither Roman, Dane, nor Saxon ever set foot in them. No

wonder, then, the language of these Dales, which differs little from that of the Vale,—except in its greater *purity*,—should abound in *native words*; or that it should vary so widely in *pronunciation* from the established language of this day, as to be in a manner wholly unintelligible to strangers; not, however, so much through *original words*, as through a regular SYSTEMATIC DEVIATION from the established *pronunciation* of *English words* *.

This difference in PRONUNCIATION generally arises from a *change of the vowels*; which is of course productive of a *change of words*. Hence it will be necessary, in giving an adequate idea of the language, to point out the *leading*

* It might be a difficult task, now, to ascertain with precision, whether these DEVIATIONS are in reality *corruptions* or *purities* of the ENGLISH LANGUAGE. They are probably a mixture of the two; I mean, they may contain some slight admixture of depravity. But it would be equally reasonable to suppose that a disturbed stream should be less adulterate than its fountain, as that the language at present established should be less *corrupt*, or (to change the word without altering the argument) less *refined* than that of a District secluded in a singular manner from all intercourse with other languages.

leading principles of pronunciation: and previous to this it may be proper to mention a deviation in GRAMMAR; which, I believe, is peculiar to the dialect under notice.

The provincial language of East-Yorkshire has no *genitive case*, except that of its possessive pronouns; and except when the nominative case is understood. When this is expressed, the preceding substantive becomes in effect an adjective; as, *John Hat*,—*George House*; analagous with *London porter*,—*Yorkshire butter*.

This excision of the genitive termination gives great additional beauty and simplicity to the language, *doing away almost entirely the declension of nouns*, and *lessening that hissing* which is so disagreeable to the ears of foreigners, and which is indisputably one of the greatest blemishes of the English language.

A person unacquainted with this mode of speech will conceive it to be the cause of much ambiguity. But, among those who use it, no inconveniency whatever arises from it. When the nominative case is not ex-

pressed, then a genitive termination becomes requisite, and is always used; as, Whose hat is this? It is *John's*. Whose house is this? It is *George's*. The same in the personal pronouns: as, Whose land is this? It is *your's*; it is *mine*; it is *his*. Even when the substantive is joined, the personal pronouns take a genitive form; as, *his* country, *your* country, *my* country.

The PRONUNCIATION now remains to be noticed.

The deviations lie principally in the *vowels*; but there is one peculiarity of ARTICULATION which is noticeable; as being a stranger in the established pronunciation; though common, I believe, to the northern counties. This is in the articulation of the *t*, in *butter*, *matter*, and all words of a similar termination; also in *tree*, *trace*, *tread*, and all words and syllables beginning with *tr* *.

The articulation, in these cases, is between the established articulation of the *t* and that of the *th*; the tongue being pressed hard against the teeth and the gums jointly; not slightly touching

* The letter *d* takes the same articulation in similar cases; namely, whenever it is subjoined with *r* or *er*.

touching the gums alone, as in the ordinary articulation of the *t*. I notice this as a *provincialism*; and know no better test of a *northern provincialist* than this peculiarity.

In the pronunciation of *VOWELS*, that of *o* long, as in *stone*, *yoke*, *bole*, *more*, is first noticeable. A mere provincialist of East Yorkshire knows no such sound; nor can he, without much practice, pronounce it. In the provincial dialect it takes four distinct vocal sounds; namely, *eea*, *au*, *ooa*, *a*,—according to the consonants it is joined with in composition. Thus *stone* is pronounced *steean*; *yoke*, *yauk*; *bole*, *booa*; *more*, *mare*.

The diphthong *ea*, which formerly, it is probable, had a distinct vocal sound assigned it in the English language, but which seems to be at present entirely unknown to the English tongue, is still in common use in the dialect under notice. In the established pronunciation, *break* is become *brake*; *tea*, *tee*; *sea*, *see*; but in this they are pronounced alike, by a vocal sound between the *e* and the *a* long,

The *a long* is generally, but not invariably, changed into *eea*; as, *flake*, *steec*; *lame*, *leeam*; *late*, *leeat*; or into *a short*, as, *take*, *tack*; *make*, *mack*.

The *e short*, before *l* and *n*, is lengthened by the *y consonant* articulated as in *yet*, *yes*, *you*: thus, *well* (a fountain) becomes *weyl*; to *sell*, to *seyl*; *men*, *meyn*; *ten*, *teyn*: in one case it changes into *e long*; as, *well* (the adverb), *weel*.

The *i long* seldom has the established pronunciation. Before *gh* it generally changes into *e long*; as, *night*, *neet*; *bright*, *breet*; *right*, *reet*: before *l*, into *a broad* (as in *father*, *half*, and before the letter *r*); as, *mile*, *maal*; *stile*, *staal*; and does not, in any case, take, in strictness, the modern sound, which is a diphthong composed of *a broad* and *e*: whereas its provincial sound here is, the *accepted* sound of *e short* lengthened by the *y consonant**; as, *white*, *wheyt*; to *write*, to *wreyt*: a mode of pronunciation which perhaps formerly

* I say, the *accepted* sound of *e short*, though it is by no means the *actual* sound of that vowel. I have nevertheless thought proper to give it the established power in the Glossary. The *i short* I retain for the same reason, though still more liable to objection.

merly was in general use, but which now seems to be confined to provincial dialects, or is not at least heard in *fashionable* languages.

The *oo* before *k* changes into *u* long; as book, *buke*; to look, to *luke*; before *t*, *l*, *m*, *th*, generally into *ea* long; as boots, *beats*; fool, *feal*; broom, *bream*; tooth, *teath*; before *r*, mostly into *ee*; as floor, *fleer*; door, *deer*.

Ol before *d* generally becomes *au*; as, old, *aud*; cold, *caud*; wolds, *wauds*: in one instance the *l* is mute; as, hold, *bod*.

In words ending in *ault* or *alt*, the *l* is likewise mute, the termination becoming in both cases *aut*; as fault, *faut*; salt, *saut*; malt, *maut* •.

X 4

The

* This brings to my mind a circumstance which deserves notice; as it serves to shew the *process of corruption*, or as others perhaps will have it, *refinement* of languages. There are, in many cases, *two distinct provincial languages* in this District: one of them spoken by the lower class,—more especially of old people; the other by the superior class of *provincialists*. The first I shall call the *vulgar tongue* (though in all probability the purer language); the other the *middle dialect*. Thus the English word *malt* is in the vulgar tongue *maut*;

The *ou* changes almost invariably into *oo*; as, flour, *floor*; our, *oor*; house, *boose*; mouse, *moose*.

The *ow* is subject to a similar deviation; as, bowls, *bools*; power, *poor*; flower, *floor*; bow, *boo*; cow, *coo*.

These are the principal part of the more REGULAR DEVIATIONS in the pronunciation of the East-Yorkshire dialect. To go thro' its ANOMALIES would be an endless task: some of them will appear in the following GLOSSARY; in the forming of which I have been induced to break through my original plan with respect to PROVINCIALISMS; which was, and indeed still is, to confine myself merely to such words as relate more especially to RURAL AFFAIRS. But finding, *in this particular instance*, a DECLINING LANGUAGE, which

maut; in the middle dialect, *molt*: *Malton*, in like manner, becomes *Mauton* and *Molton*. All syllables formed with *o long* have three distinct pronunciations: thus *bool* in the vulgar tongue, *ball* in the middle dialect, and *bole* in the English language, convey the same idea. *Creetac*, *crake*, *crow*; *father* (the *a short*), *faither*, *father*, are other instances. In a few generations, it is probable, the present vulgar tongue will be lost, and the present middle dialect will then of course become the vulgar tongue.

which is unknown to the public*, but which, it is highly probable, contains more ample remains of the ANCIENT LANGUAGE of the CENTRAL PARTS OF THIS ISLAND, than any other which is now spoken; I was willing to do my best endeavour towards arresting it in its present form; before the general blaze of fashion and refinement, which has already spread its dawn even over this secluded District, shall have buried it in irretrievable obscurity.

* Except some fragments of it, which were collected on the banks of the Humber (at the most extreme distance from what may be considered as the source of the dialect) by Mr. Brokesby, and communicated to Mr. RAY; who has preserved them in his COLLECTION OF LOCAL WORDS:

PRO.

PROVINCIALISMS

EAST-YORKSHIRE*.

EXPLANATIONS. In this Glossary, *a*, before a consonant and without the *e* final, has the accepted power of a *short*, as in man. *a*, with the *e* final, or *ai*, denotes the *English a*, or a *slender*, as in fate; *aa*, the *French a*, or the *English a broad*, as in half; *au*, the *Italian a*, or the *English aw*, as in law; *aw* a syllable composed of a *short*, as in hat, and *w* consonant, as in word.

e, the accepted power of *e* *short*. *ea*, a *long vowel*, or *simple vocal sound*, whose power lies between those of a *slender* and *e* *long*. *ee*, the *e* *long*, as in feet. *eea*, a *diphthong*, or *compound vocal sound*, composed of *e* *long* and a *short*. *ey*, a syllable formed of *e* *short*, and *y* consonant.

o is invariably *short*, as in hot. *oo* invariably *long*, as in food. *ooa*, a *compound* of *oo* and a *short*.

The *i* and the *u* have their accepted powers assigned them; excepting the slight deviation in the *i* *long*, which has been mentioned. Where there is room for ambiguity, the *quantity* is specified.

ABOON;

* More especially of the Eastern Morelands and the Vale of Pickering: the Wolds, Holderness, and the Howardian hills, use the same dialect, but in a less perfect state.

A.

ABOON; above, in its general sense.

To ADDLE; to earn by working: "he cannot addle his bread."

ADDIWISSEN; to be sent about addiwissen, is to be sent on a fool's errand:—an expression which is nearly obsolete.

AIRTH; quarter; as, "in what airth is the wind?"

AISK; a newt, or lizzard.

AITHER; a plowing; as, the first or second aither; the same as *airth* of some places, and *earth* of others.

AME'LL; between; as, "amell fix and seven o'clock."

ANANTERS, or ANTERS; left, or for fear;—"ananters it should rain."

ANCHOR; the chape of a buckle.

ANENST, or OVER-ANENST; opposite.

AR; a cicatrice, or scar left by a wound.

ARFISH; somewhat afraid.

ARK; a kind of large chest or bin, with divisions within, formerly used for laying up dressed corn in; a sort of moveable granary.

ASS; ashes.

ASSLE; query, a corruption of *axis*, or a native word? *afsle-tooth*, a grinder; *afsle-tree*, the axis of a carriage-wheel, but of no other wheel; nor is it ever applied without the termination tree. Perhaps *axle* is a pedantic corruption of this word.

AVE-

AVERAGE ; the pasturage of common fields and other stubbles after harvest.

AUM ; elm.

B.

BACKSTON ; (that is, *baking stone*) a slate, hung in an iron frame over the fire, to bake cakes upon.

BADGER ; a huckster.

BAIRN ; child.

BAIRNWORTS ; *bellis perennis* ; daisy.

BALKS (pronounced *bauks*) ; a rough chamber in an out-building.

BARFAN ; a horse-collar.

BARGUEST ; a hobgoblin of the highest order ; terrible in aspect, and loaded with chains of tremendous rattle.

BASS ; a matt of any kind.

BAT ; a blow : hence

BATS ; a beating ; "aa'll gi' tha' thi' bats:" I'll give thee a beating.

BEACE ; cattle ; the plural of beast.

BEACE ; a cattle-stall.

To BEAL ; to bellow as an ox.

BECK ; brook (the common term).

BEELD ; shelter ; also the cause of shelter : a clump or skreen of trees planted for the protection of stock, is called a beeld.

BELIVE ; (the *i lang*) in the evening.

BENT ; a species of rush which grows on the Moreland hills.

BE-

BESHARP; make haste.

BINK; a bench, common at the doors of cottages; generally made of stones, or of earth planted on the top with camomile.

BIRDSEYE; *veronica chamaedrys*; germander speedwell.

BISSLINGS, or BISSLING-MILK; the first milk of a newly-calven cow.

BLACK-NEBB'D-CROW; the carrion crow.

BLAKE; yellowish: colour of bees-wax.

BLASHY; wet, dirty, splashy; as, "blashy weather."

BLEA; dusky blue, or lead-colour.

BLEABERRY; *vaccinium myrtillus*, common whortleberry.

BLEB; a blister; or an air-bubble.

BLENDINGS; peas and beans grown together as a crop.

BLEWM'LK; skim-milk.

BLINDERS, or BLINDING-BRIDLE (the *i short*); blinkers for draught-horses.

BLUE-CAPS; *scabiosa succisa*; meadow scabious; devil's-bit.

BOGGLE; an inferior hobgoblin, or any thing frightful; hence *to boggle*, as a horse.

BOG-VIOLET; *pinguicula vulgaris*; butterwort.

BONNY; pretty, handsome, beautiful.

To BOOAC; to reach; to keck.

BOON; going presently; as, "he is boon to market."

BOORLY; lusty; gross and large made, with some degree of comeliness; as, a boorly man or woman.

BOTCHET;

318 PROVINCIALISMS.

BOTCHET ; small-beer mead.

BOTTRY ; elder : a " bottry tree."

BRAKENS ; *pteris aquilina* ; brakes ; fern.

BRANT ; steep ; as a hill, or a road (the common epithet).

BRASS ; halfpence.

BRASHY ; small, rubbishy ; as, refuse fuel.

To BRAY ; to pound, or to break small, as lime-stones for the kiln, &c.

BREEA ; the brink or bank of a brook or river.

BREERS ; brambles and briars.

BRIDE-DOOR ; " to run for the bride-door," is to start for a favor given by a bride to be run for by the youth of the neighbourhood ; who wait at the church-door until the marriage ceremony be over, and from thence run to the bride's door. The prize a ribbon, which is worn for the day in the hat of the winner. If the distance be great, as two or three miles, it is customary to " ride for the bride-door."

BRIDE-WAIN ; a carriage loaded with household furniture and utensils, travelling from the bride's father's to the bridegroom's house. Formerly, great parade and ceremony were observed on this occasion. The wains were drawn entirely by oxen, whose horns and heads were ornamented with ribbons. Ten or perhaps twenty pair of oxen have, on great occasions, assisted in drawing a bride-wain. A young woman at her spinning-wheel

wheel is seated on the center of the load. In passing through towns and villages, the bride's friends and acquaintance throw up articles of furniture, until the "draught," be it ever so powerful, is at least feigned to be over-loaded; and at length is "set fast;" generally, however, by some artifice, rather than the weight of the load; which, nevertheless, has on some occasions been so considerable, as to require several wains to carry it.

BRIMMING; a sow when she takes the boar is said to be a brimming; and the boar is said to brim her.

BROOACH (that is *broach*); the spire of a church.

BROCK; a young grasshopper. "He sweats like a brock."

BROO; the forehead; and hence the upper part of a hill, resembling the forehead.

BUCKHEADING; cutting off live hedge-thorns, fence-height.

BUCKLE-HORNS; short crooked horns, turning horizontally inward.

BUFE; a bough of a tree.

BUFFETSTOOL; a low four-legged stool.

BULLHEAD; the fish, miller's-thumb.

BULLS-FOREHEAD; *aira cæspetosa*; turf air-grass.

BULLSPINK; the bird, chaffinch.

BUMMLE-BEE; the humble bee; properly humming-bee.

BUN; a kecks, or hollow stem.

BUR-

- BURDEN-BAND ; a hempen hay-band.
 BURK ; *betula alba* ; the birch.
 BUR-THISTLE ; *carduus lanceolatus* ; spear-thistle.
 BUSK ; a bush.
 BUTTERBUMP ; the bittern.
 BUVER ; the common gnat, or musquitto.

C.

- To CADGE ; to carry.
 To CAKE ; to cackle as geese : geese cake, hen's cackle.
 CAM ; any long mound of made earth.
 CAN ; a small milk-pail, with a handle on the side.
 To CANKER ; to rust.
 CANKER ; rust (in common use).
 CANTY ; brisk, lively, active ; generally spoken of an old person.
 CAPES ; ears of corn broken off in thrashing (the NORF. COLDER).
 CAR ; low marshy ground ; fen ; contradistinct from " Ing," as being *pastured*.
 CARBERRIES ; gooseberries ; *ribes grossularia* ; properly *grossberries*.
 CARLINGS ; fried pease, eaten the Sunday next but one before Easter ; which is called " Carl-Sunday."
 CAT-WHIN ; *rosa spinosissima* ; burnet rose.
 To CAVE (vulgarly to *keeav*) ; to rake off or out of ; as short straws and ears from the corn in chaff on a barn-floor.
 CAUF ; calf.

CAVING-

CAVING RAKE; a barn-floor rake, with a short head and long teeth.

CAZZONS; the dung of cattle dried for fuel; a common article of fuel in Holderness.

CEILING; the wainscoting of a room is called the "sealin;" the ceiling, the "*underdrawing*."

CHATS; keys of the ash, and maple; also the catkins of the hazle.

CHEESE-CAKE-GRASS; *lotus corniculatus*; birdsfoot trefoil.

CHESLIP-SKIN; the calf's bag, used in making "yerning."

CHIMPINGS; grits; rough-ground oatmeal.

To CHIP; to trip; as, "to chip up the heels;" or to "chip a fall;" as in wrestling.

To CHIP; to break the shell as chickens do previous to their exclusion; also to *chop*, as the lips.

CHIZZIL; bran (the common term).

To CHUNTER; to talk about and repine at small misfortunes; to express discontent about trifles.

CICELY; *chærophyllum sylvestre*; orchard weed; cowparsley.

CLAGGY; sticky; as wet clay.

To CLAME (*v. n.*); to daub, as wet soil with the harrows.

To CLAME; (*v. a.*) to spread unctuous matter; as salve on a plaster, butter on bread.

To CLAPPERCLAW; to beat, or paw, with the open hand.

CLARTY; clammy, as honey, &c. spoken of a clayey soil when wet.

CLAVVER; clover.

To **CLAVVER**; to clamber, as children.

CLEANING; the secundine of the cow, ewe, &c.

To **CLICK**; to snatch hastily or rudely.

To **CLIP**; to shear as sheep.

CLIPPING; a sheep-shearing.

CLOCKS; beetles of all kinds.

CLOCK-SEAVES; *sebanus nigricans*; black-headed bograssh.

CLODDY; thick, short, and full of flesh; as a bullock of this description.

CLOG; a log; as a elog of wood.

CLOG-SHOES; wooden shoes; or rather shoes with wooden soles.

To **CLOW**; to pull together, rudely; or to labour in a vulgar, furious manner.

CLUBSTER; a float.

To **CLUNTER**; to make a rude noise with the feet in walking.

To **COBBLE**; to stone; to throw stones, dirt, or snow-balls.

COBBLES; pebbles; round stones found in the soil. Also the small boats of fishermen, &c.

COBBLETREES; double swingle-trees, whip-pins, or splinter-bars.

COBBY; merry; cheerful.

COD;

COD; pod: pease or beans which are well hung with pods, are said to be well "coddled."

COMMOTHER (perhaps *Co-mother*); a godmother.

CONNY; clever; neat; tidy; agreeable.

COOL, or **COWL**; a swelling raised on the head by a blow from a cudgel, or other hard weapon.

COOP; an ox cart, with a *close* body, and without "shelvings," for carrying manure, &c. still in use.

To COOR; to crouch or sit upon the haunches.

COOSCOT; a wood-pigeon.

COPING (pronounced *keaping*); the covering of a stone quarry.

CORNBIND; *polygonum convolvulus*; climbing buck wheat: also *convolvulus arvensis*; corn convolvulus.

CLOSE (pronounced *clooace*), an inclosure; in distinction to "field," which implies an open field.

COTTREL; the *key* of an iron bolt.

COWDY; pert; frolicksome.

To COWL; to gather, rake, or scrape together.

COWL-RAKE; a mud scraper.

COW-MIG; the drainage of a cow-house, or dunghill.

To COWP; to change; to swap.

COWSTRIPLINGS; *primula veris*; cowslips.

COWTHERED; recovered from disease or coldness.

COW-TIE; a short thick hair rope, with a wooden nut at one end, and an eye formed in the other; for hopping the hind legs of a cow while in milking.

CRAKE (vulg. *creeak*); a crow or rook.

CRAKEFEET; *orches*; orchises.

CRAKENEEDLES; *scandix pecten veneris*; shepherds needle.

CRAMBLES; large boughs of trees, off which the faggot wood is cut.

CRANKY; checked linnen: "cranky apron;" a checked-linen apron.

To CREE; to seethe; to *pre-boil*, as rice, &c.

CREEL; a kind of bier, used for slaughtering and salving sheep upon.

CROFT; a small inclosure; larger than a yard; but smaller than a "close."

CROOK (pronounced *crûke*); a hook; as, a "yat-cruke;" a gate hook.

CROUCE; pleased, satisfied, happy, in good spirits.

To CROWDLE (diminutive of *to crowd*); to creep close together, as children round the fire, or chickens under the hen.

To CRUNKLE; to tumble or rumple, as linen or other cloaths.

CUPROSE; *papaver*; poppy.

CUSHIA; *heracleum spondylium*; cowparsnep.

D.

DAFT; stupid, inapt; opposed to quick and sensible.

DAITLE (that is *day-tale*); by the day; as, "daitle-man," a day-labourer; "daitle-work," work done by the day.

DAP; fledgling, as young birds in the nest.

DAW; doughy, underbaked.

DAWL'D; tired; worn-out with fatigue or repetition.

DEA; do: as, "winnot ye dea't?" will you not do it?

DEAF; blasted, or barren; as a deaf ear of corn; or a deaf nut; namely, a nut without a kernel,

DEA-NETTLE; *galeopsis tetrahit*; wild hemp.

DEEAZ'D; killed, or much injured by cold, or a want of due warmth; as vegetables which are frost-nipped; or chickens which die in the shell, through the hen's absence.

DEED; doings: "whent deed;" great to-do.

DEFT; neat; pretty; handsome.

To DELVE; to dint or bruise, as a pewter or a tin vessel.

DESS (of hay); a cut of hay.

To DESS UP; to pile up neatly.

To DIG; to break up the ground with a hack, mattock, or other tool, which requires a stroke in using it: see To GRAVE,

DIKE; a ditch; also a puddle, or small pool of water.

To DILL; to soothe, blunt or silence pain or sound.

To DITHER (the *i* short, as in wither); to tremble or shiver with cold.

To DOCK; to trim the buttocks, &c. of sheep.

DOCKEN; *rumex*; dock.

DOGFINKIL; *anthemis cotula*; maithe-weed.

DONNOT, (that is, *dows-not*); good for nothing; bad: a name of the Devil.

To DOOK; to duck, or immerge in water; also to bow down the head abruptly.

DOORY, or **DEERY**; very little, diminutive: "a laatie doory thing."

DORDUM; a loud, confused, riotous noise.

To DOW; to thrive or be useful; as, "he dows for nought," he is good for nothing: "he neither dees nor dows," he neither dies nor mends.

DOWLED; dead, flat; spoken of liquor which has lost its head.

DOWLEY; sickly, pale; not brisk, or florid.

DOWNDINNER; afternoon luncheon.

DOZZAND; shrivelled; not plump and fair.

DRAFF; brewer's grains.

DRAPE (vulgarly *dreeap*); a barren cow.

DRAUGHT; a team, either of oxen or horses.

DREE; tedious; unexpectedly long.

To DRESS (pron. *drifs*); to clean, as the barn-floor or the table; also to cleanse from refuse, as corn or flour.

To

To DRITE; to drawl in speaking.

DROKE (pronounced *drooac*); *lolium temulentum*; darnel.

DUBBLER; a dish or platter for the table.

DUMP; a deep hole of water; feigned at least to be bottomless.

DUNDER-KNOLL; a blockhead.

To DUZ; to beat out, as over-ripe corn at harvest.

E.

EASINS; eaves of a house.

EE; the eye.

EEN; eyes.

EERAN; errand.

ELLER; *betula alnus*; alder.

ELSIN; an awl.

ENTRY; an entrance, or small hall.

ESH; the ash: probably the Saxon pronunciation.

EWER; see **YEWER**.

F.

FAANTICKLES; freckles on the face.

To FAFF; to blow in puffs.

FALLOW; ground laid down to rest, without sowing grass seeds (as formerly practised).

FALLOW-HAY; hay grown upon a fallow, or new natural ley.

To FALTER ; to thrash barley in the chaff, in order to break off the awns.

To FASH ; to teaze, and vex by importunity.

FAT-HEN ; *chenopodium* ; goosefoot.

FAUD ; a truss of short straw, containing as much as the arms can well " faud ;" that is, fold.

FAUF ; a fallow, or ground repeatedly tilled, without an intervening crop.

To FEAL ; to hide, in the general sense.

To FEED (*v. a.*) ; to fat cattle or sheep. " I mean to feed him ;" I intend to fat him.

To FELLY ; to break up a fallow.

FEND ; activity, management, assiduity, prowess.

To FEND ; to strive, as for a livelihood.

To FEY ; to winnow with the natural wind.

To FEZZON ON ; to seize fiercely ; as the bulldog fastens on the baited bull.

To FICK ; to struggle or fight with the legs ; as a cow in the " tie ;" or a child in the cradle.

FIRE-EYLDING ; fuel.

FITCHES ; *viciae* ; vetches.

To FITTLE ; to prepare, adjust, or make ready.

FIXFAX ; the sinews of the neck of cattle and sheep.

To FLACK ; to flicker as a bird ; to throb as a wound.

FLAGS ; flakes of snow are called " snaw-flags."

To FLAN ; to spread wide ; as the sides of a bowl or scuttle ; opposite to upright.

To FLAY ; to frighten, in the general sense.

FLAY-

FLAY-CRAKE ; a scare-crow.

FLEAKS ; wattles ; hurdles woven with twigs.

FLECKED ; pied, as cattle.

FLIG ; fledge ; able to *fly* ; analogous with to *lig*, to lie.

To FLIT ; to move, or remove, as tenants at quarter-day.

To FLOWTER ; to flurry, or confuse, with a degree of fear.

FOALFOOT ; *tussilage farfara* ; coltsfoot.

FOG ; aftergrass (hence perhaps *foggy*, as applied to a horse).

FOISTY ; musty.

FOLDGARTH (vulg. *faudgarth*) ; farm-yard.

FOND ; weak, silly, foolish.

FOND-PLUFE : It was formerly a custom, which is not I believe yet laid aside, for the youth of each parish or township to drag a plow from village to village, on Twelfth-day ; collecting money to make merry with in the evening. Each party is headed by "Mab and his wife," in disguise, with their faces blacked, and a kind of Harlequinean dress. I have met with no satisfactory account of the origin of this custom.

FOSS ; a waterfall.

FOULMART (pron. *foomart*) ; a polecat.

FOWT ; a fool.

To FOOAZ; to level, with a pair of shears, the top of a fleece of wool.

FREM; strange, inimical, not intimate or friendly.

To FRIDGE; to chafe; to *frict*; to wear or injure by friction.

FRUGGAN; an oven-poker: also a dirty slovenly woman.

G.

GAALFAT, or **GUILEFAT**; the vat in which new ale is set to ferment; also the liquor fermenting.

GAD; a long team-whip; also a fishing-rod.

GAIN; short, near; as, the "gaineft way."

GAIRN; yarn.

GAIT (vulg. *geeat*); street; as west-gait, castle-gait*, the town-gait, the gait-door.

GAIT (vulg. *geeat*); a way; as "killing-gait," "gossip-gait;" the names of by-ways across common fields; also "git a gait"—go thy way.

GAIT (pron. *geeat*); a going place; as a "cow-gait;" the going of a cow in a summer pasture.

GAIT (pronounced as *gate*); a single sheaf of corn, bound near the top, and set upon its butts.

GALLOWAY; the common name of a poney, or under-sized saddle-horse.

GA.

* In towns which never were inclosed by a wall; consequently never had any *gates*. The interior streets of York, and perhaps of all old towns in the county, are called *gaits*; improperly *gates*.

GAMASHERS ; short spatterdashies, worn by plowmen.

To GAMMER ; to idle:

GAMMERSTAGS ; an idle loose girl.

To GANG ; to go.

GANG ; a set ; as, " a gang of calves-feet."

GANTRY ; a beer-stand ; a frame for placing liquor-casks on.

To GAR ; to make, or oblige by force ; as, " I'll gar you do it."

GARFITS ; garbage.

GARSIL ; hedging thorns, or other brushwood used in making dead hedges.

GARTH ; a yard, or small inclosure near a house,

To GAUV ; to stare about oafishly.

GAUVISON ; an oafish, weak silly fellow.

GEEAVLAC (perhaps *gaulehack*) ; an iron crow for raising stones, &c.

GEEAVLE (in the middle dialect *gaule*) ; the gable of a building.

GEERS ; harness of draught horses (the common term).

To GERN (the *g hard*, as in get) ; to snarl as a dog, or an ill-natured husband.

GEWGAW ; a Jew's harp.

GIB (the *g hard*, as in gild) ; a hook : a *gibby stick*, a hooked stick.

GILDERS (the *g hard*) ; hair nooses for catching small birds.

GILL

GILL (the *g hard*) ; a small valley ; generally a branch of a valley, in a mountainous country, furnished with a stream, and containing more or less woodiness.

GILTS (the *g hard*) ; young female pigs, whether open or spayed ; analogous with *heifer*.

GIMMER (the *g hard*) ; a female young sheep ; as, "gimmer-lamb—a ewe-lamb — "gimmer-hog"—a female ewe of the first year.

A GLIFT ; a glimpse.

To GLOOAR ; to stare with a fixt countenance, rudely, or frightfully.

GOB ; a vulgar name for the mouth ; hence *gobstick*, a wooden spoon.

GODSPENNY ; earnest money, given on hiring a servant.

GODSHARLD ; God forbid !

GOLDSPINK ; the bird, yellowhammer.

GOOAC (mid. dial. *gauk*) ; the core of a hay-stack, or an apple.

GOSSIP ; a godfather.

GOTHERLY ; affable, sociable, pleased with each other.

GOWLANS ; the yellow flowers of the crowfoot tribe.

GOWPIN ; as much as the two hands can hold.

GRAIN ; a branch ; as, a bough of a tree, or a branch of a dale ; and also the tine of a fork.

GRAITH ; riches.

To GRAITHE ; to make fit ; to prepare ; to furnish with things suitable.

To GRAVE (vulg. *greeav*) ; to dig or break up the ground with a *spade*. See **To DIG**.

GREASE ; rancid butter, of the lowest degree. See Vol. II. p. 196.

To GREET ; to weep ; to cry as a child, or a person in grief.

GRIFF ; a deep valley, with a rocky fissure-like chasm at the bottom.

To GRIME ; to sully with soot or coals : in common use.

GRIP ; a trench, or small ditch.

GRIPE ; a dung-fork.

GRIZELY (vulg. *graazly*) ; ugly in the extreme.

H.

HACK ; half a mattock ; a mattock without the axe-end ; a tool much in use.

HAG-WORM ; an adder.

HAGS ; hanging-woods ; or woods in general.

HAIROUGH ; *galium aperine* ; cleavers.

HANDCLOUT (that is, *hand-cloth*) ; a towel.

HANK ; a with, or rope, for fastening a gate.

To HAP ; to cover ; as the seed with soil, or the body with cloaths.

A HAR ; a strong fog or small drizzling rain.

HAR-

HARLED ; mottled ; as cattle.

HASK ; deficient in moisture ; spoken more particularly of food, as bread.

HAUF ; half.

HAVVER ; oats.

HAY-SPADE ; a sharp, heart-shaped spade, universally in use for cutting hay with.

HEAF ; the haunt or habitual pasture of sheep, on a common or heath.

HEAP ; a pottle ; a quartern ; a quarter of a peck.

To HEAZ ; to cough or hawk ; as cattle when they clear the windpipe, or force up phlegm.

HEBBLE ; the rail of a wooden bridge.

HECK ; a rack ; as a "hay-heck ;" a horse-rack ; also the inner or entry-door of a cottage ; formerly, in all probability, made like a heck.

HECKLE ; the flax-dressers tool.

HECKLER ; a flax-dresser.

HEDGING-MITTENS ; hedging-gloves.

HEEAL ; whole (probably the old British word).

HELM ; a hovel ; or an open shed for cattle ; sometimes covered with faggots, and frequently with a stack of beans or other corn.

HENYBAUKS ; hen-rooft.

HENYCAUL ; a chicken-coop.

HENYPENNY ; *rhinanthus cristæ galli* ; yellow rattle.

HEV ; have.

HEZ ; has.

HIND ; a farm-bailiff, or headman.

To

To HIPE ; to strike with the horn (Doss—Norf.)

HIPPLES ; cocklets, or small bundles of hay set up to dry. Vol. II. p. 141.

To HITCH ; to hop on one leg.

HOB ; the shoe or foal of a sledge.

HOG ; a sheep of a year old ; a hoggard.

HOG-PIGS ; castrates ; barrow-pigs.

HOLL (pronounced *howl*) ; hollow ; as, a "hollow-way," a hollow-way : cattle when empty of meat are said to be "holl."

HOLL ; a deep narrow valley is frequently termed a "holl."

HOLLIN ; holly.

HOLM (pron. *howm*) ; a fresh-water island ; a piece of land surrounded by a divaricating river or brook : hence the name of places, as *Keld-holm*, *North-holm*.

HONEY ; a common word of endearment.

The HOOD ; the back of the fire.

To HOPPLE ; to fetter, by tying the forelegs loosely together.

HORSAM and HUNGIL-MONEY ; a small tax which is still paid (though the intention of it has long since ceased) by the townships on the north side of the Vale, and within the lathe or weapontake of Pickering, for horsemen and hounds kept for the purpose of driving off the deer of the forest of Pickering from the corn-fields which bordered upon it. When that field of a given township which lay next the forest was fallow,

no

no tax was due from it that year: and tho' this forest has long been thrown open, or disafforested, and the common fields now inclosed, the "fauf year" (calculating every third year) is still exempt from this *imposition*.

HORSEKNOBS; *centaurea jacea*; knobweed; knapweed.

HOST-HOUSE (pron. *woſt-houſe*); a farmer's inn at market.

To HOVER; to ſtay; to wait for: "Will you hover till I come?"

The HOUSE; the ſitting-room, or fore-kitchen.

HOW; a round hillock; perhaps ſometimes a natural knoll; but generally of factitious origin:

The Moreland ſwells abound with *hows*.

To HOWZE; to lade, as water.

HOYT; a ſimpleton; a mild name for a fool.

HUBBLESHEW; a hubbub, a tumultuous aſſembly:

HUFFIL; a finger-bag.

HUFIL; the bird, woodpecker.

To HUG; to carry; eſpecially a cumbrous load:

The HUK; the huckle, or hip.

HULET; an owl.

HUMBLED; hornleſs; ſpoken of cattle and ſheep:

To HURPLE; to ſtick up the back, as cattle under a hedge in cold weather.

HYVIN; ivy.

J.

To JAUP (*v. n.*) ; to make a noise like liquor agitated in a close vessel.

To JAUP (*v. a.*) ; to jumble ; as the sediment with the clear of bottled liquor.

JEWEL ; the starling of a wooden bridge.

ILK ; each ; every ; as, "ilk other house."

IMP ; an eke placed under a bee-hive.

The IN-EAR, or NEAR ; the kidney.

ING ; meadow ; low mowing ground. See CAR.

INOO ; presently.

JUST NOO (that is, *just now*) ; immediately, instantly.

K.

To KEDGE ; to gluttonize.

KEEAL, or *kale* ; broth ; pottage.

KEEAL-POT ; porridge-pot.

KEEANS ; scum, or *mother*, of ale, &c.

KELD (*vulg. keyld*) ; a spring ; or perhaps a general name for a river or brook which rises abruptly : hence the names of places ; as, *keld-head*, the head of the river Costa ; *keldholm*, near the efflux of the Dove ; *holl-keld-head*, the head of an emergent brook near Kirbymoorside.

KELTER ; condition. "He is in good kelter :"
he is in good case.

To KEN (vulg. to *keyn*); to know: a word in common use. "Do you ken him?" Do you know him?

KENSBACK; a thing known by some striking mark is said to be a kensback.

To KEP; to catch, as a ball, or rain-water from the eaves of a house.

KERN; churn (probably British).

KET; carrion; and hence a word of reproach.

KIDS; faggots.

KIE; cows; the plural of "*caa*."

KIMLIN; a large dough-tub.

KIN; a chop in the hand, &c.

KIND; friendly, intimate. "They are as kaand as brothers."

KINK; a fit, or paroxysm; as, a "kink of laughter," a violent fit of laughter: hence

KINK-COUGH; the whooping-cough.

KIRK; church; still pretty common in the vulgar dialect.

KIST; chest.

KITE; a vulgar name for the belly.

KITLING; kitten, or young cat; *Catling*.

KITTLE; ticklish; sensible to the slightest touch; actuated by the most frivolous motive; unstable; tottering.

To KNACK; to attempt to speak the established language; or to speak it affectedly.

To

To KNARL ; to know.

The KNOLL ; the top or swell of a hill is called the knoll of the hill.

L.

LAATLE ; little.

To LAIK ; to play, as children ; or at cards, or other game.

To LAIT ; to seek, in the general sense.

LANGSICKLE ; a kind of wooden sofa.

LASS ; the vulgar name of a maid-servant.

LAT ; a lath.

LAUKERINS ! an expression of some little surprise, or disgust.

LEA ; the common term for a fithe.

LEA-SAND. See STRICKLE.

To LEAD (pronounced *leed*) ; to carry, as corn and hay.

LEAD-BOWLS (the *ea long*) ; milk-leads.

LEAP ; a large deep basket ; a chaff basket.

LEATHWAKE ; lithe, weak, flexible, limber, feeble ; as a hair, a thread, an ozier twig, or an angling-rod.

LEAVE-HOLD ; let go.

To LECK-ON ; to add more water, as in brewing.

To LEEM ; to furnish the rock of the spinning-wheel with line ; also to free nuts from their husks.

LEEVE ; willingly ; a word of indifference. "Aa'd as leeve gang as stay ;" I would as soon go as stay.

A word in common use.

LEER ; a barn (growing into disuse).

LEYLANDS ; lands in a common field laid down to grass ; opposed to plowlands, or such as are kept under tillage.

To LIB ; to geld male lambs and calves (horses and pigs are "*gelded*").

To LIE LEY ; to lie in grass ; as lands in a common field. See **LEYLANDS**.

To LIG ; to lie along.

To LIGHT ; to rest, depend, or rely. "It is not to light on ;" It is not to be depended upon ; it is not safe to settle or rest on.

LING ; *erica* ; the common name for heath.

To LITE ; to wait ; as, "Will ye lite o' ma' ?" Will you wait for me ?

LOBSTROUS LOUSE ; a wood-louse.

LOGGIN ; a truss of long straw.

LOOAN, or **LOOANIN** ; a lane.

To LOOK ; to weed ; or rather to disweed ; as corn, or young woods.

LOOP ; the thimble of a gate or door. "Loops and crukes ;" hooks and thimbles : also a stitch in knitting.

A LOW ; a flame, or blaze ; as the low of a candle.

LOWCE (that is, *loose*) ; freed from servitude.

LOWND ; loo, still, calm, under shelter ; opposed to windy.

To LOWP ; to leap.

MACK ;

M.

MACK ; sort ; species ; as, what mack of corn, or flock ?

MEEALIN (mid. dial. *mailin*) ; an oven broom.

To MAINSWEAR ; to swear falsely ; to commit perjury.

MAIZ ; a kind of large light hay basket.

MANG ; a mash of bran, malt, &c.

MAR ; a mere, or small lake.

MARROWS ; fellows ; spoken of oxen, &c. &c.

MASHELSON ; a mixture of wheat and rye ; messin.

MAUKS ; maggots.

MAUL ; a beetle ; as “ a clodding-maul ; ” a clotting-beetle.

MAULS ; *malvæ* ; mallows.

MAUF ; a brother-in-law.

MAUM ; mellow, attended with a degree of dryness.

MEADOW ; any ground shut up to be mown ; in contradistinction to pasture.

MEALS ; mould ; earth ; soil.

MEANS ; property.

MEEA ; the plural of more ; analogous with enow ; as, “ *meea meyn*, and *mare wark*.”

MELL (vulg. *meyl*) ; a mallet.

MELL-SUPPER, or **MEYL-SUPPER** ; a supper given to farm work-people at the close of harvest ; a harvest-home.

MENSE ; manners ; creditableness.

MENSEFUL ; mannerly, decent, neat.

MERCURY ; arsenic.

MET ; two bushels.

MET-POKE ; a narrow corn-bag to contain two bushels.

MEW ; a mow of corn or hay.

MICKLE ; (vulg. tong.) ; much : "Is there mic-
kle ti' dea ?" Is there much to do ?

MIDDEN ; a dunghill.

MIDGE ; a small gnat.

MILNER ; miller.

To MINT ; to make a feint ; to aim without in-
tending to hit ; also to hint distantly at something
desired.

MISTEACHED ; (pron. *mistecht*) ; spoiled by im-
proper treatment ; vicious, as a horse.

MITCH ; (mid. dial.) much.

MITTENS ; gloves with only one bag for the fingers.

MOOR-PAWMS ; (that is *Moor-Palms*) ; the
flowers of the *carex* tribe ; after which the heath-
sheep, in the spring, stray away from their accus-
tomed "heafs :"—returning again when these
flowers go off.

MOOTER ; toll taken at a mill for grinding corn.

MORTAR ; loamy soil beaten up with water, for-
merly used in building ordinary walls ; in contra-
distinction to "lime,"—"lime-and-sand," or
cement.

To MOULD (pronounced to *mowd*) ; to spread mole-hills, &c.

MOWDHILL ; mole-hill.

MOWDIWARP ; a mole.

MOY ; muggy ; also demure (perhaps close).

MOZE ; a moss ; that is, a lake overgrown with moss and other aquatics.

MUCK ; dung ; manure.

To MUCK, or to MUCK-OUT ; to clear the stalls of cattle from dung.

MUCK-MIDDEN ; dunghill.

MUD-SHEEP ; sheep of the old large Teefwater breed.

MUFFS ; mitts.

MUN ; must : " Aa mun gang ;" I must go.

MUNNOT, or MOANT ; must not : " Thoo munnot gang ;" Thou must not go.

To MURL ; to crumble as bread.

N.

NANTPIE ; magpie.

NAT ; a straw mattrafs.

NEAF ; the fist.

NEAF-FUL ; a handful.

NEB ; the beak of a bird.

To NEEZE ; to sneeze (the ancient pronunciation).

NITHERED (the *i* short as in withered) ; perishing with cold.

NOWTFOOT-OIL ; an oil extracted from the feet of cattle.

NOWTHERD ; cattle-herd, or keeper of cattle ; neatherd.

O.

OLD-FARRAND (vulg. *audfarrand*) ; old-fashioned ; spoken of a child forward in sense and backward in growth.

OLD MILK ; skim-milk.

ON ; used for *of* ; as, " nowther on 'em ul teyl mah ; " neither of them will tell me.

ON-STAND ; the rent paid by the outgoing to the incoming tenant for such land as the former has rightfully cropped before his leaving the farm. See Vol. I. p. 37.

ORLING ; a stunted child ; or any ill thriving young stock.

OSKIN ; an ox-gang ; a quantity, or share of common field land, proportioned, perhaps, to the size of the fields, and the number of messuages in the given township, at the time the fields were set out, or apportioned among the houses.

To OVERGET (pronounced *owergit*) ; to overtake upon the road,

OWCE ; ox.

OWCEN ; oxen.

OWER ; over,

OWERWELT

OWERWELT (a word difficult to define); a sheep which gets laid upon its back in a hollow is said to be in an *owerwelt*.

P.

PAIT; a badger.

PALMS (pronounced *pawms*); the male catkins of the fallow, which are worn in the hat (if the season permit) on Palm Sunday. *Palm-crosses* are also made, on that day, of the twigs of the same tree.

To **PAN**; to frame or proffer, as a learner: "He pans weel."

PANKIN; any small earthen jar.

PARING-AND-BURNING; burnbeating; den-
sbering; sodburning.

PARING-SPADE; a breast-plow.

PAWKY; arch; cunning; artful.

To **PEFF**; to cough short and faintly, as sheep.

PESSCOD-SCALDING; a kind of merry-making, in summer-evenings: the treat, green field peas, boiled in the shells.

To **PET**; to indulge; to spoil by over-indulgence.

PET; a child spoiled by improper indulgence.

PET-LAMB; a lamb reared by hand; a cadelamb.

To **PICK**; to push, or shove, with the arms or body: "He picked me down."

To **PICK-UP**; to vomit.

PICKS; the suit of diamonds, in cards.

PIE;

PIE ; a receptacle for rape-seed. See Vol. II. p. 40.

To PIE ; to pry ; to peep, slyly and watchfully ; perhaps as the magpie.

PIGGIN ; a small wooden drinking vessel ; now disused.

PIGLEAVES ; *onopordon acanthium* ; cotton thistle.

PIKE ; a stacklet, or loadcock, of hay. See Vol. II, p. 140.

A PILE OF GRASS ; a blade of grass.

PLANE-TREE ; *acer pseudo-platanus* ; sycamore.

PLOOK ; a pimple.

PLUFE ; plow ; to *plew* ; to plow.

POOAC ; a narrow corn bag.

POPPLE ; *agrostemma githago* ; cockle.

POST-AND-PAN. Old half-timber buildings are said to be post-and-pan.

POT-KELPS ; the loose bow or handle of a porridge-pot.

PREACE ; estimation : such a person or thing is in " great preace."

PRICKER ; a brad-awl.

PROD ; a short spike : hence

PROD ; a goad for driving oxen.

To PROD ; to poke or prick with a prod.

To PRODDLE ; to poke, or feel for, or fetch out, with a long stick or other instrument.

PUBBLE ; plump, full-bodied, as corn,

PULLS ; the shells or chaff of rape and other pulse,

PULSEY ; a poultice,

QUEER ;

Q.

QUEER ; the choir of a church.

QUICKS ; *triticum repens* ; couch-grass. See WHICKS.

R.

TO RAIT ; to dissipate the sap of vegetables, by exposing them abroad to the weather. Hay is said to be *raited* when it has been much exposed to an alternacy of wet and dry weather. See the Art, FLAX ; Vol. II. page 74.

RAITCH ; a line or list of white down a horse's face.

RANK ; standing in close order ; thick upon the ground, as corn in the field, or trees in a wood.

RANNLEBAUK ; a wooden bar, or balk, laid across the chimney of a cottage, to hang the pot-hooks on.

REAPS ; parcels of corn laid by the *Reapers* to be gathered into sheaves by the binder.

RECKLING ; the last of the farrow ; an underling.

RECKON ; pot-hooks of a particular make.

REEANG'D ; discoloured in stripes ; listred.

REEK ; smoke ; a word in common use.

RESHES ; *juncus inflexus* ; wire-rush.

REZZLE ; weezle.

To RIE ; to turn corn in a sieve ; bringing the
"cares" into an eddy.

To RIFT ; to eructate.

RIGG ; ridge, as of land ; also a long narrow hill.

RIGGEN ; ridge of a roof.

RIGGEN-TREE ; a piece of timber laid along the
ridge of a roof to support the heads of the spars :
an unnecessary piece of timber with which all old
roofs are loaded.

RIGGIL ; ridgil.

RIMS ; the steps or staves of a ladder.

To ROIL ; to play the male-romp ; spoken of a
rude playful boy.

ROOAC, or ROKE ; a kind of smoke ; a species of
mist, fog, or small rain.

ROOP ; a hoarseness.

ROOTER ; a kind of rushing noise ; or a rough
attack ; as a violent gust of wind ; or a person
rushing into company abruptly, or rudely.

To ROW ; to rake or stir about, as ashes in an oven.

To ROWT ; to low as cattle.

ROWTY ; rank ; overgrown, as beans or other
corn.

RUD ; red ochre ; used in giving a temporary mark
to sheep.

RUDSTAKES ; stakes to which cattle are fastened
in the house.

To RUMMLE (that is, to *rumble*) ; to make a low
rumbling noise, as the bull when he is agitated or
displeased.

RUNSH ;

RUNSH ; *sinapis arvensis* ; wild mustard ; catlock.

RUSH ; a feast ; a merry-making ; a rout.

RUSTBURN ; *ononis* ; rest-harrow.

S.

SAAN ; since, when it follows the time ; as, " Hoo
" lang faan ?" " A year-faan."

SACKLESS ; idiotic ; spoken of a weak, harmless,
inoffensive person.

SAD ; heavy, applied to bread ; deep or dark, ap-
plied to colour.

SAIM ; hog's-lard.

SAL ; shall.

To SALVE SHEEP ; to dress them with tar and
grease.

To SAM ; to curdle milk for cheese, &c. " When do
you sam ?" When do you set your milk ? or, When
do you make cheese ?

SARK ; shirt.

SAUF ; *salix caprea* ; fallow.

SAUFY ; wet, as land in a rainy season.

SAUL ; a kind of moth.

To SCALE ; to spread, as manure, gravel, or other
loose materials.

SCAR ; a precipice faced with rock.

To SCRAUT ; to scratch, with a nail or other
sharp-pointed tool.

SCROGS ;

SCROGS ; stunted shrubs ; as the hazle browzed by cattle.

To SCUD ; to clean or scrape with a " spittle."

To SCUG ; to hide.

In SCUGGERY ; in secrecy ; hid, as from creditors.

SCUTTLE ; a shallow basket or wicker-bowl ; much in use here in the barn, and in other departments of husbandry.

SEAVES ; *junci* ; rushes.

SEER ; sure, or assure ; as, " Aa weant, aa seer tha' ;" I won't, I assure thee.

SEG, or BULLSEG ; a castrate bull.

SEGGRUMS ; *senecio jacobæa* ; ragwort.

SEGS ; *carices* ; sedges.

SEN ; self : " Aa'll dea't mi' sen ;" I'll do it myself.

To SET ; to *see*, or accompany part of the way.

SETTER ; a seton, or issue in cattle.

SETTERGRASS ; *helieborus fætidus* ; a species of bear's-foot ; used in making " setters" or issues in cattle.

To SHACK (that is, to *shake*) ; to shed, as corn at harvest.

SHACK-FORK (that is, *shake-fork*) ; a wooden fork, for shaking straw off the barn-floor ; generally made of a forked ozier ; the tines or branches about two feet long, and one foot wide at the points.

SHACKLE OF THE ARM ; the wrist.

SHADE ; a shed for fuel, &c.

SHAFT ;

SHAFT; handle; as "fork-shaft"—"spade-shaft,"
&c.

SHANDY; a little crack-brained; somewhat crazy.

To SHED; to part; as wool, or the hair.

To SHEER; to reap, or cut corn, with a sickle, or reaping-hook.

SHEEP-SALVE; tar-and-grease for dressing sheep with. See Vol. II. p. 225.

SHELVINGS; moveable side-rails of a waggon or cart; put on for a top-load, and taken off for a body-load.

SHIBBANDS; shoe-strings.

To SHILL; to shell; and more generally to separate: taking off the floughs or skins of oats, in order to make oatmeal, is called *shilling* them; turning a small quantity of milk into curds and whey is called *shilling* it; to sever sheep is to *shill* them.

SHOT-ON; rid-of: "He can't git shot on't:" he cannot dispose or get rid of it.

To SHURL; to slide, as upon ice.

SIDE; long, deep; spoken of a roof, cloaths, &c.

To SIDELONG; to fetter, as a preventive from straying, or breaking pasture, by chaining a fore and a hind foot of the same side together. See To HOPPLE.

SIDEWAVER; the purline of a roof.

To

352 PROVINCIALISMS.

To SIE ; to stretch ; as a rope, gloves, &c.

SIKE ; such, in its general sense.

To SILE ; to strain, as fresh milk from the cow.

SILE ; a milk-strainer.

SILLS ; the shafts of a waggon or cart.

SIN ; since, when it precedes the time expressed ;
as, " I have not seen him sin Tuesday."

To SIND ; to rinse, or wash out, as linen, or a milking pail.

To SIPE ; to ooze, or drain out slowly.

SINSAAN ; since, when spoken indefinitely, or when the time is understood ; as, " I have not seen him sinfaan ;" I have not seen him since, or since that time.

SITTINGS ; statutes for servants.

To SIZ ; to hiss.

SKEEL ; a large milking pail ; with two handles, formed of two opposite staves rising higher than the rest.

To SKELP ; to whip the bottom with the hand.

SKEP ; a deep, round, coarse basket.

To SKERL ; to scream as a child in crying, or a woman in distress.

To SKEYL ; to lean on one side : to *skeyl-up* ; to throw up the fore-part of a cart, in order to shoot the load ; to *skeyl-over* ; to overturn.

SKEYLBEAST ; the partition of cattle stalls.

SKEYLD ; party-coloured, as geese or ducks ; shelled.

To

To SKIME (vulg. *skaam*); to squint.

To SKIMMER; to shine; to glitter.

SKREED; a border; or narrow slip of land, or of cloth.

SKUFE; a precipice.

SLACK; a valley, or small shallow dale; a dip.

SLAPE; slippery; as ice, or a dirty path.

SLED; a sledge.

SLEEN (that is, *flain*); the smut of corn. An ear which is smutty is called a "flain ear."

To SLIPE OFF; to draw off superficially; as skin from the body, bark from a tree, &c.

To SLITHER (*i short*, as in hither); to slide, as down a rope, a ladder, or the side of a hill.

SLOT; any broad, *flat* wooden bar; distinct from a *flower*, which is always *round*.

SLUSH; mud.

To SMIT; to infect (perhaps to *smite*).

SMITTING; infectious; catching, as a disease.

SMOOT; a hair muce; or any small gap or hole in the bottom of a hedge: hence,

To SMOOT; to creep under or through, as a hare or sheep through a hedge.

To SMOOTH (vulg. to *smearth*); to iron washed linen.

To SMURK; to smile; to look pleasantly.

To SNAPE; to silence, check, or at least threaten, as a barking dog, or a mischievous child.

SNECK, the latch of a door, or a gate.

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SNEVVER; slender and neat.

SNOCKSNARLS; thread which is overtwisted, and runs into kinks, is said to run up into snock-snarls.

SNOD; smooth, even, smug, neat.

To SNOOAC; to smell in a snuffing manner.

SOCK; the share of a plow (the common term).

SOKE (vulg. *soac*); an exclusive privilege claimed by a mill, for grinding all the corn which is used within the manor or township it stands in*.

To SOSS; to lap, as a dog.

SOURDOCKEN; *rumex acetosa*; sorrel.

To SOWL; to pull about in water; as sheep in the wash-pool, &c.

SPAW; the slit of a pen.

SPECK; the heel-piece of a shoe.

To SPEEAN (mid. dial. to *spane*); to wean, as calves or pigs.

To SPEEAV (mid. dial. to *spave*); to spay, as a female calf.

To SPELDER (vulg. to *speylder*); to spell, as a word.

SPELK; a splinter, or thin piece of wood.

SPENG'D; pied, as cattle.

SPICE; dried fruit, as raisins, currants, &c.

SPIRES;

* Some trials at law relative to this ancient privilege have lately taken place; but the millers have generally been cast. It seems to be understood, however, that an *alien* miller has no right to ask publicly for corn to be ground in a parish which has a corn mill belonging to it. A horn may nevertheless be sounded, or a bell be rung,

SPIRES ; timber stands (not common).

SPITTLE ; a spaddle, or little spade.

To SPREAD ; to break hay out of swath ; to *ted*.

To SPRENT ; to splash or smear with small spots.

SPRIG ; a brad.

SPRING ; a young wood, raised from the stools of fallen timber-trees.

SPRUNT ; a steep road.

SQUAB ; a couch, common in most farm "houses."

STACKBARS ; large hurdles with which hay stacks in the field are generally fenced.

STAG ; a young horse.

STALL ; a doorless pew of a church.

STALLED ; satiated with eating.

To STANG ; to shoot with pain.

STANG ; a long pole *.

STARK ;

* TO RIDE THE STANG. A custom, which *few* men, I hope, will censure, has prevailed in this country time immemorial, and is still, I find, prevalent. This custom is called "riding the stang:" and is used as a reproof to the man who beats his wife ; or (when it happens) to the wife who beats her husband.

The ceremony is that of placing a man or a boy upon a long pole, borne on men's shoulders, and parading before the house of the delinquent ; the rider repeating some rustic verses applicable to the occasion. If this be found ineffectual, the ceremony is repeated with stronger marks of disapprobation. In flagrant and obstinate cases, the door has been assailed, the offender seized, and the punishment of the ducking-stool added to the disgrace of the stang. Some inveterate cases, it seems, have recently yielded to this admirable remedy.

STARK ; tight ; complete ; not lax : as a stark rope ; stark with severe exercise ; stark mad.

To STAUP ; to lift the feet high, and tread heavily, in walking.

STEATHING ; a lath and plaister partition.

To STECK ; to shut, as a door or a gate.

STEG ; a gander.

STEVVON ; a loud voice.

STIDDY (that is, *steady*) ; the common name of an anvil.

STOOK ; shock ; twelve sheaves of corn set up together in the field.

STOOP ; a post ; as, "a yat-stoop," a gate-post ; "stoops and rails," posts and rails.

STONYHARD ; *lithospermum arvense* ; corn gromwell.

To STOOR ; to rise up in clouds, as smoke, dust, fallen lime, &c.

STORM ; a fall of snow.

STOT ; a steer, or young ox.

STOVEN ; a shoot of a tree.

STOWER ; a staff, or round stick ; as, "a heck-flower," a rack-staff.

To STRAMA'SH : to crush, or break irreparably ; to destroy.

STREEA ; straw.

STRICKLE ; an appendage of the fithe ; the tool with which it is whetted ; made, here, in a peculiar manner : a square piece of wood, worked off at one end to a point ; the other end forms a handle : the surfaces indented with the point of a sickle ;

a fickle; greased with hogs-lard; and powdered with sharp sand, or powder of a gristone, found in one particular part of the Eastern Morelands; from whence it is carried as far as the banks of the Humber for this use; under the name of "leafsand."

To STRIP; to draw the *aftermilking*s of cows.

STRIPPINGS; *aftermilking*s; *strokings*.

STRUNT; the dock of a horse, independant of the hair; also the tail of slaughtered cattle or sheep, when the skin is taken off.

To STUB; to grub up stumps of trees and shrubs.

STUNT; stubborn; not easy to be bent; as, a "stunt child," a stubborn child; a "stunt stick," a thick short stick.

STUPID; obstinate (the common epithet).

STURKEN; to stiffen, as melted grease.

STURKS; yearling cattle.

STY; a ladder (the common term).

SUD; should.

To SUMMER-EAT; to use as pasture.

To SUNDER; to air; to expose to the sun and wind; as hay which has been cocked but which is still under-dry.

SWAD; a pod; especially of peas which have been boiled in the shell.

SWAIMISH; bashful, in the general sense.

SWANG; any low, long, grassy place covered with water.

SWAPE ; a long pole turning on a fulcrum ; used in raising water out of a well.

SWARTH ; sward ; whether of grass land, or of bacon.

To SWASH or SWASH-OVER ; to spill by waves ; as milk or water agitated in a pail.

SWATCH ; a pattern or small specimen of cloth, cut off the end of the piece ; also a dyer's tally.

To SWATTER ; to spill or throw about water, as geese and ducks do in drinking.

SWEETH ; a swath of mown grass.

SWEETH-BAUK ; the ridge of stubble or short grass which is left between two swath-widths in mowing.

SWEET-MART ; the marten. See **FOUL-MART**.

To SWIDDEN ; to singe, or burn off, as heath, &c.

To SWIDGE ; to smart violently, as a burn or recent wound.

SWILL ; a sort of shallow tub.

SWILLINGS ; hog-wash.

SWILL-TUB ; hog-tub..

SWINE-THISTLE ; *sonchus oleraceus* ; sow thistle.

To SWINGLE ; to rough-dress flax.

SWINGLETREE ; splinterbar ; whippin.

SYKE ; a rill or small brook ; more particularly, I believe, in a low boggy situation.

T.

To TAAL ; to settle, or be reconciled to a situation ;
as a servant to a place ; sheep to a " heaf," &c.

TAISTREL ; a rascal.

TEA ; to : as, " pud sum mare tea't ;" put some
more to it.

TEA ; too : as, " aal gang tea ;" I'll go likewise.

TEAM ; an ox-chain, passing from yoke to
yoke.

To TEAM ; to pour, as water : also to unload, as
hay or corn.

TEAM ; empty ; as, a " team waggon," an emp-
ty waggon.

TEAP ; tup ; a ram.

TEATHY ; peevish, as children when cutting the
teeth.

To TED. See To SPREAD.

To TEEAV ; to paw and sprawl with the arms and
legs.

TEMCE ; a coarse hair sieve, for separating the
inferior flour from the bran.

To TENT ; to tend, as sheep or other stock.

To TENT ; to scare or frighten ; as, to tent the
birds off the corn.

To TENG ; to sting, as the bee or the adder.

To TEW ; to work as mortar, &c. also to agitate
and fatigue by violent exercise.

THAAVLE; a pot-stick; a ladle without the bowl.

THACK; thatch.

THARFLY; slowly; deliberately; as, "the rain comes tharfly."

To THEAK; to thatch.

THEAKER; thatcher.

THEET; close; tight; opposed to leaky.

THOU; this pronoun is still much in use. Farmers in general "thou" their servants; the inferior class (and the lower class of men in general) frequently their wives, and always their children; and the children as invariably "thou" each other. Superiors in general "thou" their inferiors; while inferiors "you" their betters. Equals and intimates of the lower class generally "thou" one another. These distinctions are sometimes the cause of awkwardness: to "you" a man may be making too familiar with him; while to "thou" him might affront him.

To THREAP; to assert positively; to force down an argument.

THREAVE; twelve "loggin's" of straw.

THREEFOLD; *menyanthes trifoliata*; bogbean; buckbean.

THRONG (vulg. *thrang*); busily employed; "desperate thrang," very busy.

THROW, or THRAW; a turner's lathe.

To THRUM; to pur, as a cat.

TIFFANY;

TIFFANY ; a fine gauze sieve, for separating fine flour.

To TIFT ; to adjust, or dress up.

TIPE ; a trap or device for catching rabbits. See Vol. II. p. 265. Also for taking mice, rats, or other vermin. The general principle is that of a balance, with one end somewhat heavier than the other. The heavier end rests horizontally on some support: the lighter is furnished with a bait; which being approached, the weight of the animal overcomes the counter weight of the balance ; which losing its horizontal position, the animal drops into a pit, or a vessel of water, placed below to receive it.

TIPPY ; the brim of a cap, or bonnet.

TITTER ; sooner ; rather : “ I would titter go than stay.” — “ I was there titter than you.”

TIV ; to : “ gang tiv ’em ;” go to them.

TONGUE-WHALED ; severely scolded.

TRAMPERS ; strollers ; whether beggars or pedlers.

TUFIT ; the peewit, or green plover.

To TUM ; to card wool roughly ; to prepare it for the finer cards.

To TWATTLE ; to pat ; to make much of ; as horses, cows, dogs.

TWEEA ; two, in its general sense.

TWILL ; a quill.

TWILT ; a quilt, or bed-cover.

TWITCHBELL ; the earwig.

TWITTER ;

TWITTER ; thread which is unevenly spun is said to be in twitters.

V.

VARRA ; very : " varra faan ;" very fine.

VOIDER ; a kind of open-work basket.

U.

To **UNBETHINK** ; to recollect : " I unbethought myself on't," I recollected it.

The **UNDERDRAWING** ; the ceiling of a room.
See **CEILING**.

UNKARD ; strange ; as an unkard place. A servant is unkard on his first going to a fresh servitude.

UVVER : upper ; as the uvver lip.

UZZLE, or **BLACK UZZLE** ; a blackbird.

W.

WAD ; would.

To **WAFF** ; to bark as a cur.

WAIN ; a large ox-cart with an *open* body, and furnished with " shelvings ;" formerly used in carrying corn and hay. A hundred years ago, perhaps, there was not a farmer's **WAGGON** in the country : fifty years ago, **WAINS** were, I believe, pretty common : now, there is not, perhaps, one left.

WAIN-

WAINHOUSE; waggon-houses still retain the ancient name.

WAKE; a company of neighbours sitting up all night with the dead: a custom which is still prevalent.

WALKER; a fuller.

WALK-MILL; a fulling-mill.

WALLANEERING; an expression of pity.

WALSH; insipid; wanting salt, or some other seasoning: opposed to relishing.

WANKLE; unstable; not to be depended upon; as wankle weather, a wankle seat, &c.

WAR, or WARSE; worse.

WARBLES; maggots in the backs of cattle.

To WARE; to lay out; as money at a market.

To WARK; to ache: hence "head-wark"—"teeth-wark;" head-ache---tooth-ache.

WARK; work, in its general sense. But what is noticeable, the verb *to work*, and the substantive *worker*, take the established pronunciation.

WARK-DAY (pron. *warday*); week-day; in contradistinction to *Sunday*: "Sunday and war-day."

WARRIDGE; the withers of a horse.

WATH; the common name of a ford.

WATTLES; rods laid on a roof to thatch upon.

WAVERS; young timberlings left standing in a fallen wood.

To WAW (the *w* articulate); to mew as a cat.

To WAWL; to cry audibly, but not loudly.

WAZ-

WAZISTHEART; an expression of condolence.

WEAD; very angry; mad, in the figurative sense.

WEAKY; juicy; opposed to "hask."

WEANT (vulg. dial.); won't, will not.

WEERING (that is, a *wearing*); a consumption.

To be WEEA; to be sorry: "I am weea for him."

WEE-BIT; small piece.

WELL (vulg. *wayl*); surface springs, used as a source of water for domestic or other special purposes, are generally termed wells.

WEYEEY (the *y* articulate); yes, yes.

To WHALE; to beat severely, with a whip or pliant stick.

WHEAN; a strumpet.

WHEEANG; a thong of leather.

WHENT; great; extraordinary: "wheat deed," great doings.

WHERRY; a liquor made from the pulp of crabs after the verjuice is expressed; generally called crab-wherry.

To WHEWT; to whistle faintly, or unskilfully.

WHICK; alive; quick.

WHICKS; quicks; couchgrasses.

WHIE; a heifer, or young cow.

WHIG; a beverage made with whey and herbs.

WHILK; which; as, "whilk will you have?" — not used in the *relative* sense.

WHIMLY; softly; silently, or with little noise.

WHINS; *ulex europæus*; furzes.

WHITE.

WHITE-NEBB'D CROW ; the rook.

To WHITE ; to cut or shape wood with a knife.

WHITTLE ; a pocket-knife.

WHISHT ! hush ! silence !

WHOOR (mid. dial. WHEER) ; where : the latter is probably the *Saxon* pronunciation ; the former, perhaps, is of *British* origin.

WIDDY ; a with, or withy.

WIKE ; the corner of the mouth or eye.

WIKES ; temporary marks ; as boughs set up to divide swaths to be mown in the common ings ; also boughs set on haycocks for tithes, &c. &c.

WILF ; *salix alba* ; willow.

WINDER ; window.

To WINDER ; to clean corn with a fan.

WINDLESTRAWS ; *cynosurus cristatus* ; crested dogstail.

WINNOT (mid. dial.) ; will not.

WIZZENED ; withered ; shrivelled.

WOODWESH ; *genista tinctoria* ; dyer's-broom.

WOTCHAT ; orchard.

WOTS ; oats.

To WRAX ; to stretch the body in yawning ; or as cattle do when they rise.

WUMMLE ; an auger.

To WUN ; to live, or abide ; as, "he wuns at Yuch a place" (nearly obsolete).

WYAH ; well ; a word of consent.

Y.

YAA ; one, with the substantive expressed ; as, "yaa man ;" "yaa horse."

YACK ; oak : *yackrans*, acorns.

YAN ; one, with the substantive understood ; as, "gi' me yan :" give me one.

YANCE ; once.

YAT ; a gate.

YATHOUSE ; a high carriage-gateway through a building.

YAWD ; a riding-horse.

YERNIN ; cheese-rennet.

YERNUTS ; *bunium bulbocastanum* ; earthnuts.

YETHERS ; edders.

YETLING ; an iron pan.

YEWER ; the udder of a cow, &c.

YESTERNIGHT (pronounced *yisterneet*) ; last night ; analogous with yesterday.

YOON ; oven.

To **YOWL**, or **YOOL** ; to howl as a dog.

YUL-CLOG ; a large log laid behind the fire on Christmas-eve ; about which, formerly, much ceremony was observed.

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